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ABSTRACT

A study examined the occupational differences between Hispanics and non-Hispanics. The study focused on the determinants of Hispanic occupational achievement; differences in the process of occupational achievement among different Hispanic ethnic subgroups; variations in the process of occupational achievement across geographic areas; and differences among the occupational achievement of Hispanics, Blacks, and non-Hispanic Whites. Data pertaining to earnings, steadiness of employment, and general job quality of Hispanic workers were compiled from various sources, including the 1970 Census of Population and the 1976 Survey of Income and Education. Once effects of schooling, experience, foreign birth, English language ability, location, and race are taken into consideration, data do not show differences in the earning levels of men's occupations among major ethnic subgroups of the United States Hispanic population. If the factor of foreign birth has any effects on occupational earnings potential, they appear to be mediated through English language ability. Furthermore, the effect of schooling on occupational earnings is about the same for Hispanic and non-White Hispanic men. For both groups schooling and length of labor force experience have only modest effects on occupational salary potential. Recommendations called for helping Hispanic men improve their English proficiency to fluency or near fluency. (MN)

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A RAND NOTE

OCCUPATIONAL DIFFERENCES BETWEEN HISPANICS AND NON-HISPANICS

Ross M. Stolzenberg

July 1982

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The National Commission for Employment Policy

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PREFACE

The research described in this note was initiated and funded by the National Commission for Employment Policy (NCEP), as part of a larger effort to discover the causes and the remedies for employment problems of American Hispanics. These problems are known to include low income, susceptibility to unemployment, and concentration in the least desirable occupations in the U.S. economy. Among these problem areas, low occupational achievement is particularly interesting, both because of its intrinsic interest, and because poor occupational placement adversely affects both earnings and employment stability. In this piece of research, attention is focused on occupational attainment of Hispanic male workers. The major questions addressed here concern the causes of occupational differences between Hispanics and non-Hispanics, and among different ethnic subgroups of the U.S. Hispanic labor force. Because U.S. Hispanics are highly concentrated in a small number of states, considerable effort is spent separating the occupational effects of Hispanic ethnicity from the occupational impact of living in the places where Hispanic ethnics have settled in the U.S. Because Spanish is the first or only language of so many Hispanic Americans, this note gives attention to the role of English language ability in the process of occupational achievement.

The analyses reported here were designed and interpreted by the author. The opinions expressed herein are also his; they are not necessarily those of the NCEP. Syam Sarma and Evelyn Casper provided skilled computational assistance far beyond the call of duty. John Rolph provided able and useful advice on some of the statistical tests reported here. Editorial comments were provided by Donald Treiman, Carol Jusenius, and James Smith.

SUMMARY

The research reported here focuses on four key questions:

1. What are the determinants of Hispanic occupational achievement?
2. Does the process of occupational achievement work differently for some Hispanic ethnic subgroups (e.g., Cubans) than for others (e.g., Puerto Ricans)?
3. Does this process vary across geographic areas? For example, is it different in Florida than in New York?
4. How does Hispanic occupational achievement differ from that of blacks and non-Hispanic whites? How do these differences vary across Hispanic ethnicity groups in the U.S.?

Because this research is motivated by concerns about earnings, steadiness of employment, and general job quality of Hispanic workers, "occupation" is measured on three different scales. One scale corresponds to the earnings which an occupation provides for its incumbents; the other scales measure the steadiness of employment and general quality of jobs which are held by the occupation's incumbents. Data on occupational characteristics are taken from the 1970 Census of Population and other standard sources. Data on individual workers are taken from the 1976 Survey of Income and Education (SIE), a large survey conducted by the U.S. Bureau of the Census and involving members of some 190,000 households. The SIE is distinctive for its large sample size, its inclusion of detailed questions on ethnicity and English language ability, and its provisions for estimates of population characteristics in each of the 50 states. However, the SIE sample used in this study is limited to respondents from those states in which there are at least 200 SIE Hispanic respondents who are members of the experienced civilian labor force. This requirement avoids confounding Hispanic-non-Hispanic differences in geographic location with Hispanic-non-Hispanic differences in other characteristics.

Major findings regarding differences between ethnic subgroups of the Hispanic male labor force are as follows:

- Ethnic subgroups of the U.S. Hispanic population are concentrated in different states, making it difficult to distinquish effects of ethnicity from the effects of living and working in particular places. Simple comparisons of the occupational characteristics of Hispanic ethnic groups are likely to mistake the effects of location for impact of ethnicity.
- Insofar as the earnings levels of men's occupations are concerned, data do not show differences among major ethnic subgroups of the U.S. Hispanic population, once effects of schooling, experience, foreign birth, English language ability, location and race are taken into consideration. Similar results obtain when occupations are measured according to the general job quality and the steadiness of employment which they provide for their incumbents.

Major findings regarding Hispanic-non-Hispanic difference in the levels of occupational earnings are as follows:

- English language ability has a large effect on the occupational earnings potential of Hispanic men, except perhaps in Florida. For white non-Hispanics, the effect of English language ability is not large. In practice, this means that the penality for not knowing English is greater for Hispanics than for non-Hispanics.
- Data show no pattern of systematic effects of foreign birth on occupational earnings potential, net of other factors considered here. If foreign birth has effects, they appear to be mediated through English language ability.

- The effect of schooling on occupational earnings is about the same for Hispanic and white non-Hispanic men. For both groups, once the effects of time in the labor force, foreign birth, English language ability and geographic location are held constant, schooling has only modest effects on the extent to which one's occupation is high (or low) paying.
- The effects of length of labor force experience are modest and do not seem to be different for Hispanic than for white non-Hispanic men.

In analyses in which occupations are measured according to the steadiness of employment which they provide for their incumbents, findings were essentially the same as in analyses where occupations are measured according to the level of earnings which they provide to their incumbents. However, in analyses of overall job quality of occupations, the effects of English language ability for Hispanics are considerably weaker than English language effects for Hispanics in the earnings power and employment stability analyses. Nonetheless, English language ability effects remain generally stronger for Hispanics than for non-Hispanics in the job quality analyses. In these analyses, the effect of schooling becomes moderate for both Hispanics and non-Hispanics, rather than small, as in analyses in which occupations are measured according to their levels of earnings and employment stability. In other respects, the general job quality analyses are consistent with the results regarding occupational earnings levels and occupational employment stability.

Although the subject of discrimination is not addressed directly in this document, the regression equations described here, and the statistical method used, are very similar to methods used in many studies of discrimination. In many situations, certain of the findings reported here would be taken as evidence of strong occupational discrimination against Hispanics who have low English lanuage ability. However, results reported here are not consistent with a finding of discrimination against Hispanic men who speak English well. If these methods really do tell us something about discrimination, then our

findings seem to be saying that relatively modest improvements in the English language ability of Hispanics are likely to yield large occupational benefits for Hispanic men. Raising Hispanic men's English language ability to fluency or near fluency would seem to sharply reduce, or even eliminate, occupational differences between similar Hispanic and non-Hispanic males who are employed in the same geographic area.

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I. INTRODUCTION

The research reported here is part of a larger effort to determine if (and why) Hispanic-origin Americans have patterns of earnings, unemployment and job quality which are different from those of other U.S. workers. In this study, attention is fixed almost exclusively on occupational achievement. While this is a relatively narrow focus, both common experience and more formal social science theories make it overwhelmingly clear that one's occupation strongly affects one's earnings, one's probability of becoming unemployed, and the quality of one's working life. Occupations differ in their entry requirements, in the benefits, working conditions and mobility opportunities which they provide for their incumbents, and even in the mobility opportunities they provide to their incumbents' sons and daughters. In brief, there appears to be much useful, policy-related information to be gained from understanding the occupational achievement of Hispanics, and the ways in which Hispanic occupational achievement differs (or does not differ) from the process of occupational assignment experienced by other segments of the U.S. labor force.

The research reported here focuses on four key questions:

1. What are the determinants of Hispanic occupational achievement?
2. Does the process of occupational achievement work differently for some Hispanic ethnic subgroups (e.g., Cubans) than for others (e.g., Puerto Ricans)?

3. Does this process vary across geographic areas? For example, is it different in New York than in Florida?
4. How does Hispanic occupational achievement differ from the occupational achievement of blacks and whites? How do these differences vary across Hispanic ethnicity groups and geographic areas of the U.S.? Why?

As will become clear in a few pages, the simplicity with which these questions can be posed belies the statistical difficulty involved in providing answers to them. Indeed, methodological problems shape not only the type of analyses which are reported here, but dictate the organization of this document as well. For example, even in very large datasets, the number of Hispanic respondents is small enough to pose serious statistical problems. These problems are minimized by measuring occupations on a numerical scale, such as the income that they provide for their incumbents, rather than by treating occupations as discrete entities.[1] But one must take care that the scale on which occupations are measured is appropriate to the substantive questions which motivate the research. Accordingly, the first section of this report considers the measurement of occupation. The next section describes the data utilized for the bulk of the analyses reported here. Following that, a basic model of occupational achievement is presented, and the statistical design of the study is presented, along with some analytic results which weighed heavily in the choice of this design. Following that, substantive findings are described, and some policy implications are discussed.

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[1] In the language of statistics, measuring occupations on a numerical scale allows the use of least squares analytic methods. Treating occupations as distinct entities requires discrete multivariate methods, which generally require far more data cases for an analysis of given complexity than least squares techniques.

II. THE MEASUREMENT OF OCCUPATION

Occupations are socially defined collections of tasks which differ in the skills required for their performance (elaborated from a definition by Paul M. Siegel, 1971). Occupations are not immutable. For example, old occupations vanish (e.g., buggy whip maker) and new ones appear (e.g., computer programmer). And so the major organizations which gather occupational data (e.g., the U.S. Bureau of the Census) periodically change the categories which they use to classify occupations. As the technology available to do the work of an occupation's incumbents changes, so may the tasks which these incumbents perform. Nor is there one "true" scale on which to measure occupations, since they differ along many dimensions, including the earnings which they provide for their incumbents, the prestige they confer on those who perform their work, the schooling required for incumbency, the conditions under which their work is done, and a seemingly endless array of other traits (for treatments of this subject, see, e.g., Siegel, 1971; Stolzenberg, 1975; Temme, 1975). The key point here is that measuring occupations is very much like measuring any other complex social or physical phenomenon: one measures what is most relevant to the questions one wishes to answer, but one should have no illusions that any single measure provides a full or complete representation of the occupation.

The research reported here is motivated by concerns about earnings, steadiness of employment, and general job quality of Hispanic workers (National Commission on Employment Policy, 1981). Thus it is

appropriate for us to measure occupations according to the earnings, steadiness of employment, and general job quality which they provide for their incumbents. As will be seen in statistical analyses presented below, these occupational characteristics are related, but they are not identical. Accordingly, I measure occupation on several different scales, one most appropriate to concerns about earnings, and others more relevant to concerns about other things which occupations provide for their incumbents.

Before giving the details of these occupational measures, it seems worthwhile to consider an alternative strategy for treating occupation. This alternative is to treat occupations as nominal categories, but to use broad enough, and therefore few enough, categories to avoid overwhelming the limited size of the Hispanic samples in available datasets. Thus, for example, one might use the 12 major occupational categories of the Census Bureau's occupational classification.[1] But closer examination shows that broad categories create more problems than they solve. In particular, gross categories make strange bedfellows of dissimilar occupations. For example, the 1970 Census Bureau category "Professional, technical and kindred" workers combines embalmers, radio disk jockeys, and law judges, plus a host of other occupations. With combinations like these, the variation within categories is at times larger than the differences between these broad groupings. And while there are isolated instances in which analyses based on gross occupational classifications have produced the same findings as analyses

[1] In the extreme, one might follow the dubious practice of Spilerman and Miller (1976), who attempted to learn something about employment inequality by dividing all occupations into two categories, "good" and "bad." While dividing occupations into two types may have some intuitive appeal, it is more simplistic than simplifying, and ultimately raises more questions than it answers.

based on detailed categorizations (see, e.g., Stolzenberg and D'Amico, 1977), the diversity of occupations within gross categories gives ample reason to believe that these coincidences were merely fortuitous. The advantages gained by using gross categories seem to be bought at the very severe cost of injecting doubts about the validity of findings based on these broad occupational groups. So, instead of treating occupations as nominal categories, in most of the analyses presented here, I scale them according to their values on three dimensions which are directly relevant to the purposes of this research: the earnings which an occupation provides to its employed incumbents, the steadiness with which it provides these incumbents with employment, and the overall "quality" of incumbency in the occupation. I now consider each of these scales separately.

THE EARNINGS POWER OF OCCUPATIONS

To measure the earnings power of an occupation, I use the mean earnings in dollars reported by incumbents of that occupation in the 1970 Census of Population. To avoid confounding earnings rates of occupations with the volume of work which they provide for their incumbents, I use mean earnings of persons who worked 50 to 52 weeks in the reporting year, 1969. Another variable gauges the steadiness of employment which occupations offer their incumbents. Because men's and women's earnings differ so markedly, even when both are employed in the same occupational category, I use the mean earnings for men when analyses pertain to men, and mean earnings for women when analyses pertain to women. And I take the logarithms of these mean earnings, both because of the long history of empirical findings which point to the appropriateness of using logged rather than unlogged earnings (see

the literature summary in Stolzenberg, 1975), and because preliminary experiments with the data used here showed that taking the logarithm of mean occupational earnings resulted in more precise statistical estimates than were obtained when earnings were not logged. The source of these data is Table 19 from the Census Bureau's Subject Report PC(2)-7a, "Occupational Characteristics."

THE STEADINESS OF EMPLOYMENT IN DIFFERENT OCCUPATIONS

To measure the opportunity for steady employment in an occupation, I use the proportion of its male incumbents who were employed 50 to 52 weeks in the Census reporting year, 1969, as reported in the Census of 1970. There is nothing noteworthy about the use of male weeks-worked data in analyses pertaining to men. But it seems appropriate to explain why weeks-worked data on males (but not females) are used to measure the steadiness of employment opportunities for women. The explanation is that part-year employment apparently is preferred to full-year employment by a significant portion of the female labor force. Unless one can discern the extent to which part-year employment is voluntary for women, one cannot identify the extent to which less-than-full-year employment is the consequence of a desire for part-year work rather than the result of limited opportunity for full-year employment. However, a desire for full-year work is much more the norm for men who work, making male weeks-worked data a much more valid indicator of opportunities for steady employment than female weeks-worked statistics. So I use the proportion of an occupation's male labor force which works 50 to 52 weeks per year to indicate the opportunities for full-year employment.

OVERALL JOB QUALITY

To measure the overall job quality of occupations, I use the Duncan Socioeconomic Index for occupations (SEI), as updated for 1970 Census Bureau occupational categories (Hauser and Featherman, 1977). SEI is widely misunderstood to be a quick and dirty way to make two variables, education and earnings, into one. In fact, the SEI is a statistically well-behaved, theoretically-anchored measure which grew out of decades of research on the social standing of occupations (see Siegel, 1971, for a detailed account of this research). Duncan used the schooling and income of occupational incumbents to estimate SEI for occupational categories for which no direct SEI measure was available, and others have followed Duncan's lead. But it is commonly forgotten that other estimating procedures have been tried as well (Blau and Duncan, 1967; Siegel, 1971; Temme, 1975) with results differing hardly at all from the initial schooling-earnings estimates of Duncan. For present purposes, some important facts about the SEI are as follows.

- It is stable over time; the standing of occupations on the SEI does not seem to have changed significantly over the last 40 years at least.
- It is stable over place; it is essentially invariant across as well as within Western industrialized nations (Treiman, 1977).
- It is stable over the social structure; there are not different SEI's for different segments of the population, such as blacks or women.

But perhaps the most important feature of SEI is that it serves as a summary measure of the general desirability of employment in occupations. That is, SEI appears to approximate the general public's combined evaluation of the various characteristics of occupations. SEI for an occupation is a summary judgment of the desirability of incumbency in that occupation.[2] So while it seems unwise to presume that SEI can stand for earnings, steadiness of employment, or any other specific occupational characteristic, it does appear that SEI can provide a useful supplement to these other, more precisely interpretable variables. It is for that purpose alone that this report contains analyses of Hispanic occupational achievement as measured by the Duncan socioeconomic index.

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[2] A quantitative consideration of the relationship between SEI and occupational working conditions, physical demands of work, earnings and other occupational characteristics is contained in Stolzenberg, 1973: 105. Hauser and Featherman (1977) consider this issue at length.

III. DATA

To satisfy the concerns which motivate this research, empirical analyses reported here must be based on data which meet several key criteria. Among these criteria are the following.

- Data must be relatively recent, so they will be relevant to current policy concerns.
- Data must include variables which are known or thought to be important to understanding occupational achievement in general, and the labor market experiences of Hispanics in particular--for example, English language ability.
- Data must identify specific geographic areas in which respondents reside or work, and specific ethnic groups of which they are members, to allow investigation of the geographic and ethnic differences in occupational achievement which are the subject of this research.
- Data must include sufficient numbers of respondents, and Hispanic respondents in particular, to estimate models which are appropriate for testing hypotheses about subgroup and geographic differences in occupational achievement of Hispanics and non-Hispanics. In particular, sample size must be sufficient to address the current great policy interest in State or SMSA differences in Hispanic-non-Hispanic occupational inequality.

As this note is written, only one dataset satisfies these criteria, the 1976 Survey of Income and Education (SIE). Some important facts about the SIE are described by the U.S. Bureau of the Census (1977: 1):

> The Survey of Income and Education (SIE) . . . was conducted between April and July 1976, [sic], by the Bureau of the Census.
>
> mandated by Congress for estimates in each State of the number of children 5 to 17 years of age in poverty families. The SIE also satisfies another requirement mandated by Congress, which directs the Department of Health, Education, and Welfare . . . to estimate from survey the number of children and other persons in the States who, because of limited English-speaking ability, are in need of bilingual education, guidance, and counseling.
>
> sample and were spread through every State in the Union and the District of Columbia. Interviewers made personal visits to the sample households. Interviews were conducted with a responsible adult in the household and lasted approximately 45 minutes. The final interview rate for the approximately 160,000 occupied housing units was 95.4 percent.

The combination of a high response rate, detailed information on respondents' English language ability, large samples in separate states, and a tolerably recent date of execution makes the SIE better suited to the concerns of this research than other available data.

The analyses reported in this document are based on a subset of the SIE. Persons who work in the noncivilian sector are eliminated because occupational assignment in noncivilian settings would seem to be studied most efficiently by focusing on the noncivilian organizations which employ (or fail to employ) Hispanic workers. Persons younger than 16 years are eliminated to restrict these analyses to adults. And persons who have never been employed are eliminated because such persons do not have occupations, according to the definitions and coding protocols of

the U.S. Bureau of the Census, which gathered the SIE.[1] In addition, in any particular analysis individuals are deleted from the sample if they have "missing" values on variables entering the analysis. And in analyses which attempt to locate geographic effects on occupational attainment, or to distinguish ethnicity effects from geographic effects, the sample is restricted to respondents who reside in states in which the SIE collected data on at least 200 Hispanic members of the

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[1] According to current definitions and coding protocols of the Census Bureau, persons who have never been employed do not have occupations. However, one could argue on technical grounds that deletion of persons who have never been employed censors the SIE sample and biases findings. An argument along these lines would assert that remaining out of the labor force is a response made more probable by at least two conditions which are endogenous to the process of occupational achievement: poor opportunities for employment in desirable occupations, and opportunities to qualify for desirable occupations at some later time by remaining outside the labor force to obtain occupational training or education now. Presumably, Hispanics would tend to be disproportionately over-represented in the group experiencing the first condition, and native born white males would be disproportionately over-represented in the group experiencing the second condition. Under this presumption, one might conclude that failure to adjust for censoring understates occupational differentials between Hispanics and native born white males. Under some circumstances, this argument would have some merit, but I find it unconvincing for several reasons: First, the techniques used to adjust for censored sampling are not robust, and provide little assurance that adjustment for censoring is not creating more problems than it solves. Correction for censored sampling is still in its infancy, at best. Second, there is real policy and theoretical interest in measuring and explaining occupational differences between Hispanics and non-Hispanics who work. This interest does not deny the value of understanding the role of poor quality job opportunities in keeping people from ever entering the labor force, nor does it deny the value of understanding the role of schooling and job training in inducing people to delay their entry into the labor force. But it does focus interest on those who have already entered the work force and gained incumbency in an occupation, and it does suggest that the censored sampling arguments are most relevant to a different set of questions than are being posed in this report. And, third, it seems unlikely that the Hispanic population is harboring significant numbers of persons who have never worked because they have been unable to find work in desirable occupations. Rather, widespread low wages among the Hispanic labor force suggests that Hispanics are particularly likely to take whatever work is available. In short, the arguments in favor of using methods to correct for problems of censored sampling seem neither applicable to the current enterprise nor convincing, even if applicable.

experienced civilian labor force (ECLF). This last requirement ensures that unreliability caused by small sample sizes does not overwhelm statistical methods. The states meeting this requirement are New York, New Jersey, Florida, Texas, Colorado, New Mexico, Arizona, Nevada, and California. On a more substantive level, restricting the analysis to states having substantial Hispanic populations recognizes the fact that Hispanics are concentrated in a small number of states, and that the economies of these states are not typical of the economies of the nation as a whole (see Stolzenberg and D'Amico, 1977, for detailed consideration of this point). By restricting analyses to states having large numbers of Hispanic workers, it is possible to distinguish the occupational effects of being Hispanic from the occupational effects of living in the states where Hispanics tend to live. The importance of these sample restrictions will become more apparent as analytic results are presented.

IV. ANALYTIC DESIGN AND BASIC MODEL

To perform a statistical analysis of occupational achievement, one must specify a model of how characteristics of people relate to their occupational placement. Once specified, this model can be fitted to different segments of the population, and the analysis of covariance (ANOCO) can be applied to determine if the process of occupational achievement works differently for different types of people. For present purposes, "different types of people" are defined by Hispanic ethnicity, race, sex and place of residence.

In this report, the standard practice of starting with a simple model is followed. Important hypotheses are tested by gradually complicating the model to include more elaborate specifications of the factors which affect occupational placement. As a basic model of occupational achievement, we regress an individual's occupation (as measured by one of the three occupational characteristics described above) on the following variables:

Ed — years of schooling completed by the individual

Ed2 — Ed-squared

Ex — the individual's potential number of years of labor force experience

Ex2 — Ex-squared

Forbor a dummy variable set equal to 1 if the individual was born outside of the United States, and equal to 0 else

Spkeng the individual's score on a six-point scale measuring his or her ability to speak English (fully explained below)

This basic model is a slightly elaborated version of fairly standard models used by sociologists and economists in the last two decades to understand earnings, occupational achievement, unemployment and other labor market outcomes. In this application, as in so many others, schooling is presumed to affect an individual's labor market experiences either by increasing on-the-job productivity, or by supplying credentials which affect job opportunities and treatment by employers.[1] Similarly, experience is included in the model because it serves as a crude indicator of workers' on-the-job experience, seniority, and related phenomena. Including education-squared and experience-squared in the model allows the marginal effect of schooling and experience to vary as the total number of years of school or experience changes. Using a linear term with a squared term does an acceptable job of handling nonlinearities in schooling and experience effects while using up fewer degrees of freedom than, say, a series of

[1] The productivity interpretation of schooling appears to have considerable evidence behind it, but the credentialism interpretation maintains a loyal following. No useful purpose seems to be served by reopening debate over the true productivity effects of schooling, so I leave that argument to another day.

dummy variables. Preserving degrees of freedom will prove to be very important as the analyses proceed.

The foreign-born variable is included to hold constant the effect of foreign birth on occupational achievement. Presumably, foreign birth retards an individual's labor market success through a variety of mechanisms, perhaps including impaired or delayed socialization into the ways of the American labor market, discrimination against foreigners by native-born U.S. workers, limited connections with informal networks of information about job opportunities, and so on. In 1970, about five percent of the U.S. population was foreign born (see Chiswick, 1978, for general consideration of the labor market position of foreign born workers).

Inclusion of the English language ability variable, Spkeng, avoids confounding the effects of foreign birth with the impact of its frequent consequence, impaired ability to speak English. Common experience makes clear the value of on-the-job communication. So one hypothesizes that a worker who cannot speak and understand English is less valuable to employers than workers who can communicate in the dominant language of the land. Even if non-English-speaking workers manage to live their working lives in enclaves where their own language is dominant, they must remain within those enclaves to avoid the limitations induced by their inability to speak English. Thus these workers are limited to a smaller number of jobs than are potentially available to English-speaking workers who can compete for work outside these enclaves. By including an English language ability variable in the model, language effects on occupation are allowed, and one avoids confounding the occupational effects of low English language ability

with the consequences of its frequent correlates, foreign birth and Hispanic ethnicity.

Spkeng is measured on the following scale:[2]

ADDITIONS TO THE BASIC MODEL: GENDER, ETHNICITY, RACE AND GEOGRAPHIC LOCATION

To make the basic model relevant to the questions which motivate this research, it must be modified to address ethnic, geographic, racial and gender differences in the process of occupational achievement. Because occupational sex segregation is so pervasive and severe, accounting for occupational sex segregation requires that the model be estimated separately for men and women. As noted earlier, when the model is estimated for men, the occupational earnings variable will be

[2] The simplicity with which Spkeng is described here belies the amount of study that preceded its selection as a measure of English language ability. A similar scale which measured ability to understand, rather than speak, English was investigated. However, these scales are virtually perfect substitutes for each other, and there was no advantage whatsoever to using one rather than the other. More specifically, the Pearsonian correlation between the the English speaking and English understanding scales is 0.97 for males and 0.98 for females in the SIE sample described above. In addition, five different dichotomizations of these scales were tried, but initial results suggested that dichotomization of the English ability variables merely reduced their explanatory power in models of occupational achievement. Finally, another language ability variable was tried. Called Usleng, this variable was set equal to 1 if the respondent's usual language was English, and set to zero otherwise. Like the dichotomized versions of Spkeng, Usleng was found to have a smaller effect on occupational achievement than Spkeng, but replacing Spkeng with Usleng had only the most trivial effects on the relationship between other variables in the model and occupational occupational achievement. When both Spkeng and Usleng were included in models of occupational achievement, the effect of Usleng vanished. Finally, I also included the product of schooling and Spkeng to test the hypothesis that the effect of schooling on occupational achievement varies with a person's ability to speak English. That is, since school-learned skills generally involve cognition and communication, I hypothesized that ability to communicate in English would be necessary for full utilization of these skills on the job in a predominantly English-speaking society. However, the product of Ed and Spkeng had no effect whatsoever on occupational achievement, and so was not used.

Ability to Speak English	
1	not at all
2	not well - just a few words
3	not well - more than a few words
4	well
5	very well
6	native speaker of English who was raised in a home in which English was the usual language spoken

based on men's earnings; when the model is estimated for women, the occupational earnings variable will be based on women's earnings. To include race, the model is modified either by adding dummy variables for race, or by estimating the model separately for persons of different races. Adding dummy variables for race allows racial differences in occupational achievement, but does not allow race differences in the effects on occupational achievement of independent variables in the basic model. Estimating the model separately for each race allows racial differences in the effects of independent variables. A similar, two-pronged approach is used to test for ethnic effects and for geographic effects: In some elaborations of the basic model, dummy variables for ethnicity and state of residence are added to the basic model, and in other elaborations, the model is estimated separately for members of different ethnic groups.

In this research, interest in ethnicity is limited to Hispanic ethnicity. Accordingly, ethnicity is measured according to the

following categories, based on the ethnic coding categories of the SIE. Race is divided into three categories in the present study: white, black, and other. Note that race and ethnicity are not the same. For example, both whites and blacks can be Hispanic.

DISTINGUISHING BETWEEN HISPANIC ETHNICITY GROUPS AND GEOGRAPHIC LOCATION

Immigrants from different Hispanic ethnicity groups have settled in different parts of the U.S. For example, Florida has a large concentration of Cubans, and the Southwest has heavy concentrations of Mexican-origin Hispanics. This correlation between ethnicity and location has important consequences for this research, for it affects the precision with which the occupational effects of location can be distinguished from the occupational effects of membership in different Hispanic ethnicity groups. Indeed, if the overlap between ethnicity and location is too great, it may be impossible to distinguish the occupational effects of living in a particular place from those of membership in a particular ethnicity group.

In the language of statistics, the extent of overlap between two variables is the amount of variance in each that is explained by the other. Expressed proportionally, that amount of variance is the squared

Ethnicity Categories Used with the SIE Data

1.	NonHispanic
2.	Hispanic
2a.	Cuban
2b.	Mexican (Mexican, Mexicano, Chicano, Mexican American)
2c.	Puerto Rican
2d.	Central or South American
2e.	Other Spanish

Pearsonian correlation between the two variables. However, both ethnicity and location are represented by sets of dummy variables, requiring the use of canonical correlation analysis to assess the extent to which information about the location of Hispanics overlaps with information about their ethnic subgroup. More precisely, I estimate the canonical correlation between two sets of dummy variables, one set representing the different places in which Hispanics reside, and the other set representing the different ethnicity. To make sure that results would be robust, the analysis was done a number of different ways. Table 1 describes the different specifications as well as findings from each of these analyses.

Table 1 presents analyses in which "geography" is defined in two different ways: as standard metropolitan statistical areas and as states. Two different canonical analyses are performed for states and three analyses are performed for SMSA's. Details of the canonical analyses are presented in the notes to Table 1, as well as in the body of the table. For present purposes, the most important entries in the table are found in the far right column. That column indicates the amount of overlap between geography and ethnicity of the Hispanic labor force. Entries in the far right are the proportion of variance explained by the first two canonical variates -- variates of order higher than two explain only negligible additional amounts of variance. These proportions of variance explained can be regarded as squared correlations between geography and ethnicity of the Hispanic working population. Looking at the these proportions, note that the overlap between geography and ethnicity is in the neighborhood of 80 percent.

By normal social science standards, this is a very high degree of overlap indeed, comparable to a Pearsonian correlation of 0.9 between two interval scale variables. This result suggests that much of the information contained in a Hispanic worker's ethnicity is also contained in his or her geographic location. As a substantive finding, this confirms what is apparent from graphical displays of the location of Hispanic ethnicity groups in the U.S. (e.g. NCEP, 1981): different groups immigrate to different places. As a methodological finding, this is a bit more interesting, though, since it suggests that it is difficult, or perhaps impossible, to distinguish the employment effects of living in different places from the employment effects of membership in different Hispanic ethnicity groups. Indeed, it is a sufficiently strong finding to suggest that patterns of occupational differences between different Hispanic ethnicities may be nothing more than patterns of occupational differences between people who work in different labor markets. Thus, it would seem to be a serious error to look for ethnic effects without holding constant geographic effects on occupational achievement. This is a caveat which has shaped the analyses which are presented in the following pages. But this finding also has consequences for the confidence one places in the results of earlier studies which have attempted to measure ethnic differences in the socioeconomic achievement of American Hispanics. Unless these earlier studies have held constant the effects of geographic location, one can have little confidence that they have not confounded the effects of ethnicity with the impact of residence in different places,[3] and in so

[3] For present purposes, the key fact about places is that they have different industrial compositions, which in turn generate different occupational compositions. Thus, for example, opportunities to enter the highest-paying and highest-prestige occupations are greater in urbanized places than in rural areas, simply because more of these high-

doing produced findings which indicate that either ethnicity or location or both affect the socioeconomic achievement of Hispanic Americans. Hopefully, the analyses presented below will be able to do a bit better in distinguishing the effects of place and ethnicity. I begin with an analysis of the determinants of occupational earning power, and then move on to steadiness of employment and occupational socioeconomic status (Duncan SEI).

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pay and high-prestige occupations are utilized in urban areas than in nonurban areas. Findings related to this point go back to Blau and Duncan (1967) and earlier, and motivated the analyses of Stolzenberg and D'Amico (1977) and Mueller (1974).

V. RACE AND ETHNIC EFFECTS ON OCCUPATIONAL EARNING POWER

Table 2 presents the basic covariance analysis design and related summary statistics for analyses of occupational earnings power. Readers familiar with covariance analysis designs may find Table 2 self-explanatory. However, others may find the following description useful.

ANALYTIC DESIGN

The analyses reported in the cells of Table 2 are regression analyses. The 66 cells of this table report n's and R-squareds for 66 different regression analyses. Each cell of Table 2 corresponds to a different regression analysis. Some of these regressions have more independent variables than others, and some are estimated over different subsets of the SIE sample, but all have the following traits in common:

- The unit of analysis is the individual person
- The dependent variable is the earnings power of the person's occupation (i.e., the log mean annual earnings of incumbents of the individual's occupation)
- The independent variables include at least the independent variables in the basic model (Ed, Ed2, Ex, Ex2, Forbor and Spkeng); in some regressions independent variables also include dummies for race, state of residence, Hispanic identity, and/or membership in each of four Hispanic ethnicity groups

Rows of Table 2 categorize analyses according to the geographic areas to which they pertain and the way in which geography enters the

regression equations. For example, the first row of the table reports six different regressions estimated for SIE respondents from the state of New York. Columns categorize regressions according to the ethnic and racial groups over which they are estimated, and according to the way that race and/or ethnicity enters the regressions. For example, the first row of the table reports six different regressions estimated for SIE respondents from the state of New York. For example, the first two columns report results of regressions estimated on Hispanic respondents only, while other columns report results fitted to black non-Hispanics, white non-Hispanics, and all races and ethnicities grouped together.

Notice that a center subsection of Table 2 is outlined in black. The regressions reported in this center section include only those independent variables which are in the basic model. Thus, the cell in the upper left corner of the outlined subsection reports the number of cases and R-squared obtained when the basic model is fitted to Hispanic males residing in New York state. The lower right cell of the outlined subsection reports the number of cases and R-squared obtained when the basic model is fitted to white non-Hispanic males residing in California.

Cells outside the outlined subsection of Table 2 report regressions which include dummy variables for ethnicity and/or race and/or state of residence. For example, analyses reported in the far left column of Table 2 include dummy variables representing four of the five Hispanic ethnicity groups identified in the SIE: Cubans, Mexicans, Puerto Ricans and Central and South Americans. (A dummy for the category "Other Spanish" is excluded to avoid multicolinearity.) The far right column reports analyses which include a simple Hispanic-non-Hispanic dummy

variable, a dummy set equal to one if the respondent is black, and a dummy set equal to one if the respondent is both nonwhite and nonblack (members of "other" races).

The last two rows of Table 2 report regressions based on the data from all 9 states pooled together. In regressions reported in the next-to-last row, dummy variables representing eight of the nine states are included in the regression analysis.[1] In regressions reported in the last row, labelled "9 States WITHOUT State Dummies," data are drawn from all nine states, but models do not include dummy variables representing the states.

Comparisons of rows of Table 2 allow tests of hypotheses about state differences in the process of occupational achievement. Comparisons of the columns of Table 2 allow tests of hypotheses about racial and ethnic differences in this process. Comparisons of columns within rows allow tests of hypotheses about race and ethnic differences within states.

Although full understanding of the regressions underlying Table 2 must await examination of the coefficients as well as the R-squareds and n's, some important information can be gleaned from this table. Looking first at the n's, notice that many of the state-specific analyses of Hispanics and blacks are based on very few cases. For example, there are only 98 Hispanic males in the the SIE data for Florida, after deleting cases with missing data and excluding respondents who were not in the labor force. Small n's are especially problematic for efforts to distinguish between Hispanic ethnicities in particular states, since making these distinctions involves adding variables to a basic model

[1] A dummy for one arbitrarily selected state is excluded to avoid multicolinearity among regressors. The excluded state is Florida.

which comes close indeed to overburdening the case bases in six of the nine states identified in Table 2.[2] Consequently, the state-specific analyses with small n's will be more useful for heuristic purposes than for estimation of effects in the specific locales to which they pertain. The analyses based on larger n's, identified at the right and bottom borders of Table 2, will be more useful for hypothesis testing than most of the state-specific analyses.

With caveats stated, and with a clear understanding that subsequent sections of this report will examine coefficients of the regressions which are so briefly summarized in Table 2, Table 2 can now be used to shed light on one of the key questions posed in this research: Are there ethnic differences in occupational achievement within the Hispanic labor force?

THE EFFECT OF HISPANIC ETHNICITY ON OCCUPATIONAL EARNING POWER

I begin by looking for ethnicity effects in analyses which are based entirely on Hispanic workers. The two far-left columns of Table 2 can be examined for evidence of ethnic differences in occupational earning power of Hispanics. If Hispanic ethnicity groups differed in their occupational earnings power (after adjusting for the effects of schooling, experience, English language ability, and foreign birth), then adding dummy variables for ethnicity would add to the explanatory power of the basic model. (This property of regression is the basis of the F tests for the significance of groups of variables.) The small n's in most states would make it difficult for these improvements in R-squared to achieve statistical significance, but effects of ethnicity

[2] New York, New Jersey, Florida, Colorado, Arizona and Nevada have less than 200 cases without missing data on variables used in the basic model.

would show up as larger R-squareds in column 1 than in column 2 of Table 2. However, comparing the two far left columns of Table 2, notice that adding ethnicity dummies does very little indeed to the R-squareds in New York, Texas, Colorado, New Mexico, Arizona, Nevada and California. It is only in New Jersey and Florida that ethnicity seems to have any impact. Formal F-tests confirm this finding. In all states except Florida and New Jersey, it is not possible to reject the null hypothesis that coefficients for the ethnicity dummies are all zero, using any conventional significance level. Given the large number of cases in Texas and California, and the small n's in Florida and New Jersey, it appears that these results are driven by an absence of ethnicity rather than an absence of data cases.[3]

While the two columns at the far left of Table 2 are estimated for Hispanics only, the two columns at the far right report results of analyses which include both Hispanic and non-Hispanic respondents. The two right columns report analyses in which independent variables include the variables of the basic model, dummy variables for race (Black, Otrace), and a dummy variable set equal to one for Hispanics. In addition, the analyses reported in column 5 include the four Hispanic ethnicity dummies discussed earlier. Because they are estimated over data which pools together Hispanics and non-Hispanics, the analyses in columns 5 and 6 presume that schooling, experience, and other variables in the basic model have the same effects on occupational earnings power of Hispanics as they do for non-Hispanics. In contrast the analyses in

[3] For Florida, the hypothesis of no ethnic effects is rejected at a significance level of 5 percent. For New Jersey, the hypothesis is rejected at the one percent level. Details of these tests are given in Johnston (1972: 146) and other standard references. I will return to these results later, when coefficients for these and other variables are discussed.

columns 1 and 2 allow the basic model variables to have different effects for Hispanics than for non-Hispanics. Comparing column 5 to column 6 for each state, note that addition of the ethnicity dummies adds only trivially to the variance explained. Formal F tests for significance of the ethnicity dummies show that it is only in New Jersey that one can reject the null hypothesis that the coefficients of all four ethnicity dummies are zero. This finding hardly seems indicative of any broad pattern of ethnic differences in occupational achievement of the Hispanic population. Differences in the occupational earnings power of Hispanic ethnic groups would seem to result from differences in levels on variables in the basic model, as well as ethnic differences in geographic location.

Similar conclusions can be drawn from analyses in which data from all nine states are combined. The bottom two rows of Table 2 describe analyses in which respondents from the 9 states are pooled. Whereas the state-specific analyses allowed the effects of basic model variables to differ across states, analyses reported in the bottom two rows presume that these variables have the same impact on occupational earnings power in all states. The next-to-bottom row reports analyses which include dummy variables for eight of the nine states. The last row reports regressions without state dummies.[4]

Looking first at the cells in the lower left corner of Table 2, notice that results are much the same as in the state-specific analyses

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[4] Addition of the state dummies does not add substantially to the explanatory power of these models -- note the small differences between the R-squareds for the last two rows. Yet F tests require rejection of the null hypothesis that coefficients for the state dummies are all zero. Each column of Table 2 identifies a different model and/or subset of the SIE data. A separate F test was conducted for each, and in each case, the null hypothesis that the state dummies all have coefficients of zero was rejected at the one percent level.

above: The ethnicity dummies add little indeed to explanatory power of the model which includes state dummies. Adding the four Hispanic ethnicity dummies to the model raises the R-squared from 32.44 percent to 32.97 percent -- about one-half of one percentage point. However, these ethnicity variables are statistically significant at the one percent level -- the null hypothesis that the coefficients for the four ethnicity dummies are all zero is rejected. So it will be necessary to examine the coefficients themselves to draw firm conclusions about the strength of Hispanic ethnicity effects on occupational earnings power in this specification.

For more analyses which suggest only negligible effects of ethnic divisions within the Hispanic labor force, look across to columns five and six in the next-to-last columns, notice the difference of only 0.05 percentage points. Applying an F test to this difference shows that at any conventional significance level, it is not possible to reject the null hypothesis that the four Hispanic ethnicity variables have coefficients of zero. Once again, the effect of the Hispanic ethnicity variables is indistinguishable from zero if not altogether absent.

The findings discussed so far are consistent with the argument that Hispanic ethnicity groups do not differ in their levels of occupational earnings power (after adjusting for differences in variables included in the basic model). Yet firm conclusions cannot be drawn before examining the coefficients estimated by the regression equations which are so briefly summarized in Table 2. For example, the statistics presented in Table 2 do not allow one to determine if some, but not all, of the four ethnicity variables affect Hispanics' achievement of occupational earnings power. Such questions are directly addressed by the

coefficients for the Hispanic ethnicity variables. And so I now turn to those coefficients.

Table 3 presents the coefficients for Hispanic ethnicity obtained from regressions fitted to the Hispanic male labor force only. The statistics in Table 3 are coefficients (with their t-statistics below them) from the regressions reported in the far left column of Table 2. These coefficients measure Hispanic ethnicity differences, if they exist, in occupational earnings power, after controlling for the effects of schooling, length of labor force experience, foreign birth, English language ability and geographic location. In regressions reported in the first nine rows of Table 3, geography is controlled by fitting regressions separately in each state. Fitting regressions separately in each state allows for possible state differences in the occupational effects of schooling, experience, foreign birth and English language ability. The regression reported in the next-to-last row does not allow state differences in the effects of basic model variables, but controls for geography by adding to the model eight dummy variables for state of residence. The regression reported in the bottom row includes no controls for geography.

Look first at the ethnicity effects in the state-specific regressions. Perhaps the most striking feature of these results is not in what they show, but in what they do not show. Of 32 ethnicity coefficients in these state-specific regressions, 29 are not distinguishable from zero, according to the usual t-test (two tailed), at the 10 percent significance level. The three significant ethnicity coefficients are for Mexicans in New Mexico, Puerto Ricans in Nevada, and Central and South Americans in New Jersey. Raising significance

levels to a more conventional five percent eliminates all but the effect for Central and South Americans in New Jersey, which remains significant at the one percent level as well. These findings do nothing to alter the conclusions drawn earlier from Table 2. Not only do the ethnicity coefficients fail to show any systematic pattern of ethnicity effects, but they come very close indeed to showing no ethnicity effects at all. The one ethnicity effect which survives statistical tests at normal confidence levels appears to be either a quirk of sampling or else the result of some situation peculiar to one and only one state, New Jersey.

It is possible that the lack of significant ethnicity effects in most of the state-specific analyses resulted from small sample sizes. However, samples in Texas (499 cases), New Mexico (468 cases) and California (396 cases) are sufficiently large to rule out sample size as a problem in their regressions. Yet analyses in these large-sample states show no ethnicity effects strong enough to survive a standard 5 percent significance test. Nor does it seem that multicolinearity among the ethnicity dummies is hiding some pattern of ethnic differences: If there were substantial ethnicity effects in the presence of near multicolinearity, the F-tests based on Table 2 would be significant, even if most, or even all, of the ethnicity dummies were statistically insignificant. So it seems that evidence from the state-specific analyses of Hispanic men does not support the hypothesis of ethnic differences in the attainment of occupational earnings power.

The bottom two rows of Table 3 supplement the results of the state-specific analyses. These rows report analyses in which Hispanic respondents in all nine states are pooled. The bottom row reports coefficients from an analysis in which geographic location did not enter

the regressions in any way whatsoever. Looking at the coefficients and their t-statistics in that row, notice that only the coefficient for Cuban ethnicity exceeds its standard error (i.e., has a t-statistic greater than one). In this analysis, the effect of being Cuban is statistically significant at the one percent level, although other ethnicity variables show no significant effects. Similarly, in the analyses reported in the next-to-last row, where geography enters as 8 dummy variables for state of residence, the Cuban ethnicity variable has a coefficient which is significantly different from zero at the one percent level, although other ethnicity variables show no effects. Once again, the big news in these analyses is not in what they show, but in what they fail to show: In spite of large sample size (n=2272), neither of these specifications shows any differences among four of the five ethnicity groups considered here. The fifth group, Cubans, does show an effect which is substantial in size as well as statistically significant.[5]

Considerable caution is required in interpretation of this Cuban ethnicity effect. Looking at column 3 of Table 3, note that the effect of Cuban ethnicity is estimated in only seven states. In three of these seven states, Cuban ethnicity has a negative effect -- exactly the opposite of that found in the pooled nine-state analyses. And in two

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[5] The four ethnicity variables represent five groups. The effects of the four groups explicitly included in the equation are measured relative to the effect of the excluded Hispanic ethnicity group, "Other Spanish." The coefficient of 0.1270 for Cubans corresponds to a 13.54 percent higher level of occupational earnings power after holding constant the effects of other variables in the basic model. The 13.54 percent differential is calculated as follows: Since occupational earnings power is logged, the proportional effect on occupational earnings of being Cuban is equal to the value of the natural logarithm of the coefficient for the Cuban dummy less one (see Stolzenberg, 1979); the antilogarithm of 0.1270 is 1.1354.

others (New York and Texas) the effects of Cuban ethnicity are small compared to their standard errors. Even more important, the New York and Texas Cuban effects are small compared to the Cuban ethnicity effects in Florida and California, and small relative to Cuban effects in the pooled analyses. So it appears that even if Cuban ethnicity effects are in fact real, they are not a national phenomenon, but are limited to a few locations, such as Florida and California. However, the state-specific analysis for California did not support the hypothesis that Cuban ethnicity effects there are significant, and the Florida analysis was at least inconclusive (and at most downright negative) on the subject of Cuban ethnicity effects on Hispanic occupational earnings power. In brief, the evidence does not seem to support the hypothesis that one ethnic subgroup of the U.S. Hispanic male labor force does better or worse than any other Hispanic ethnicity group in gaining access to well-paying occupations.[6]

The ethnicity coefficients discussed so far come from equations fitted only to Hispanics. In Table 4, similar coefficients are estimated in regressions fitted to both Hispanics and non-Hispanics. More specifically, Table 4 reports coefficients from regressions fitted to all males in the sample, both in individual states, and when data for all nine states are pooled. The R-squared statistics and n's for these

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[6] The sudden appearance of significant effects for the Cuban ethnicity variable in the pooled 9-state analyses probably results from the assumptions involved in pooling data from different states. In the pooled analyses, schooling, experience and other basic model variables are implicitly constrained to have the same effects on occupational earnings power in all states. If this constraint does not fit the data, then variables which do not have true effects, perhaps including Cuban ethnicity, can show spurious strong coefficients in the pooled analysis. Alternatively, the significant effects for Cubans in the pooled analysis may be nothing more than the cumulation of marginal Cuban ethnicity effects in California and Florida, although that possibility seems remote, for reasons already stated.

regressions were reported in the two far right columns of Table 2. In addition to their estimation over the combined Hispanic and non-Hispanic samples, several key facts about these regressions should be stressed:

- o In addition to variables in the basic model, they contain two dummy variables representing race.
- o They contain a dummy variable, H, set equal to one for Hispanic respondents and zero for non-Hispanics.
- o They constrain education, experience, and other variables in the basic model to have the same effects for Hispanics as for non-Hispanics.

Column 1 of Table 4 reports the coefficients of H in models which include no indicators of specific Hispanic ethnicities. The coefficients of H reported in column 1 represent the effect of being Hispanic on occupational earnings power, net of other variables in the model. The use of just a single Hispanic variable presumes that the effect of being Hispanic is the same for members of all Hispanic ethnicity groups. Columns 2 through 6 report results of analyses which include both H and the four ethnicity dummies that have occupied us at length up until now. By including the ethnicity dummies as well as H, these regressions do not constrain the effect of being Hispanic to be the same for members of all Hispanic ethnicity groups. Because it is convenient to continue focusing attention on Hispanic ethnicity effects, I first consider results presented in columns 2 through 6 of Table 4. After that, I will turn to results presented in column 1, which pertain to the model which does not include the four Hispanic dummies.

Once again, the striking thing about the coefficients of the Hispanic ethnicity variables is what they do not show, rather than what they do show: Looking at the t-statistics for the coefficients reported in columns two through 6, notice that of 41 coefficients calculated in the state-specific analyses, only one is large enough to achieve statistical significance at the five percent level (two-tailed). That one significant coefficient is the effect of Central and South American ethnicity in New Jersey. As before, this single statistically significant effect lacks any apparent substantive significance, and examination of these coefficients seems to confirm the conclusions I drew from the F tests computed earlier and reported in discussion of Table 2: The state-specific analyses show no evidence of any systematic pattern of ethnic differences among Hispanics in achievement of occupational earnings power.

Perhaps the strongest finding (or nonfinding) in these analyses is located in results based on data for all nine states pooled together. Looking at columns 2 through 6 in the next-to-last row, notice that none of the Hispanic variables has a significant coefficient. This finding is consistent with F tests reported earlier which showed that in the pooled 9-state analysis which included state dummy variables and the simple Hispanic indicator, H, the four Hispanic ethnicity variables were not statistically significant.[7]

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[7] The one divergence between earlier F test results and the coefficients reported in Table 4 comes in columns 2 through 6 of the bottom row of Table 4. Notice that the coefficient for Cuban ethnicity is statistically significant at the five percent level (two tailed). Notice also that the Cuban effect is positive, and larger in absolute value than the negative coefficient for H in that same row. Thus, this specification suggests that Cuban Hispanics do better in occupational earnings power than non-Hispanics, other things in the basic model being equal. However, the pooled-state model without state dummy variables is

After describing scores of F tests, coefficients and t-statistics, it seems reasonably safe to draw some conclusions about ethnic variation in the effect of being Hispanic on the achievement of occupational earnings power. In brief, the findings presented so far are entirely inconsistent with the hypothesis that there are systematic patterns of ethnic differentiation in the process of achieving occupational earnings power. This does not mean that the occupations of Mexican American men are as high paying as the occupations of Cuban American men. But it does mean that once the effects of schooling, experience, foreign birth and English language ability and geographic location are held constant, the differences between the occupational earnings power of Hispanic ethnicity groups vanish. Accordingly, I can dispense with further consideration of ethnicity variation in Hispanic-non-Hispanic differences in occupational earnings power. I now turn my attention to differences between the occupational earnings power of Hispanics and non-Hispanics.

THE EFFECT OF BEING HISPANIC ON THE OCCUPATIONAL EARNING POWER OF MALES

Hispanic-non-Hispanic differentials in occupational earnings power can be produced by Hispanic-non-Hispanic differences of three sorts:

- Differences in levels of factors which affect occupational achievement. For example, different mean years of schooling completed by Hispanics and non-Hispanics. For purposes of this

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clearly a misspecification, both on substantive grounds, and on the basis of F tests reported earlier which showed statistical significance of the state dummies. So this "finding" is nothing more than a methodological peculiarity, and should not be taken seriously.

research, factors which affect occupational achievement are limited to variables in the basic model, race and labor market characteristics implicitly measured by geographic location.

- o Differences in the effects of factors which affect occupational achievement. For example, higher occupational returns to schooling for non-Hispanics than for Hispanics would produce occupational differences between Hispanic and non-Hispanic workers, other things being equal.
- o "Unexplained" or "residual" differences. These are differences which persist after adjusting for differences in levels and differences in effects of factors which affect occupational achievement.

When Hispanic and non-Hispanic workers are pooled together in a regression analysis which contains no interactions between Hispanic background and other variables, Hispanic-non-Hispanic differences in levels of factors are held constant, Hispanic-non-Hispanic differences in the effects of factors are presumed to be absent, and residual differences are measured by the coefficient of H, the dummy variable for Hispanic identity. However, when regressions are fitted separately for Hispanics and for non-Hispanics, all three types of differences are made explicit. In this research, regressions are fitted to data for Hispanics and non-Hispanics pooled together, and to data for Hispanics alone and to data for non-Hispanics alone. But, in this section, I examine only the residual effects of Hispanic identity in equations which presume equal effects of basic model variables on the occupational earnings power of Hispanics and non-Hispanics. In subsequent sections, I look for Hispanic-non-Hispanics differences in the effects of basic model variables on occupational earnings power.

Column 1 of Table 4 allows a straightforward examination of the residual effect of Hispanic identity on occupational earnings power. In the first nine rows of Table 4, entries in column 1 are the coefficients for H in regressions of log mean occupational earnings on variables in the basic model. Looking at the t-statistics for these coefficients, notice that significant effects of H are found only in New York, New Jersey and California (5 percent significance level, two tailed test). Giving these significant coefficients, an intuitively meaningful interpretation is straightforward: In New York, being Hispanic lowers a man's occupational earning power about 6.5 percent, other things being equal. In New Jersey, being Hispanic lowers occupatonal earnings power by about 7.4 percent. And in California, the effect of Hispanic identity is a reduction of about 5.5 percent in occupational earnings power.[8]

However, in other states, the effect of Hispanic background on occupational earnings power is simply not distinguishable from zero. Since samples in some of these other states include large numbers of Hispanics, we can dismiss the argument that statistical insignificance of the Hispanic coefficients in state-specific regressions is merely the result of small n's. For example, the Texas analysis includes 499 Hispanic men, but the t-statistic for H is only 1.02. So these results suggest that in six of the nine states examined here, Hispanic-non-Hispanic differences in men's occupational earnings power

[8] Other things being equal in these comparisons are the things measured by variables in the basic model plus race (measured by two dummy variables) and state of residence. Since the dependent variable in these equations is logged, exponentiating the coefficient for H and then subtracting one gives the proportional effect of being Hispanic on occupational earnings power (see Stolzenberg, 1979).

are explained by Hispanic-non-Hispanic differences in schooling, length of labor market experience, foreign birth, English language ability, and racial composition.[9] But in New York, New Jersey and California, Hispanic-non-Hispanic differences in occupational earnings power persist, to the disadvantage of Hispanics, and in the face of adjustment for factors in the basic model and, in some analyses, race as well. This concludes my examination of the effects on occupational earnings power of H and the four dummy variables representing ethnic subgroups of the Hispanic American population. Scores of statistics have been considered, and dozens of statistical tests have have been carried out in the last few pages. But the conclusions to which they point are both easily summarized and important:

- o Ethnic subgroups of the U.S. Hispanic population are concentrated in different states. Consequently, it is difficult to distinguish the effects of ethnicity from the effects of living and working in particular places. Simple comparisons of the occupational characteristics of Hispanic

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[9] Since racial occupational differentials are well-known to exist and to persist after adjustment for worker characteristics and labor market attributes, the statistical tests presented here test for the existence of Hispanic occupational effects above the levels that would be expected on the basis of Hispanic-non-Hispanic differentials in racial composition. The finding of Hispanic ethnicity effects in some but not all states implies that coefficients from the pooled nine-state analysis are misleading. With that caveat stated, one can look at the coefficient for H in the the regressions fitted to the pooled data, if only out of curiosity. Looking at the bottom two rows of column 1, notice that the coefficient for H is statistically significant (two tailed test, one percent significance level) and indicates a net Hispanic-non-Hispanic differential of about 4.5 percent in occupational earnings power. Curiously, this effect is the same when state dummy variables are excluded from the regression (bottom row) as when state dummies are included (next to last row). Although these pooled analyses hide state differences in the effect of being Hispanic on occupational earnings power, they do indicate the average net effect of being Hispanic on occupational earnings power in the nine states.

ethnic groups are likely to mistake the effects of location for the impact of ethnicity.

- o Insofar as men's achievement of occupational earnings power is concerned, data do not show differences among major ethnic subgroups of the U.S. Hispanic population, once the effects of schooling, experience, foreign birth, English language ability, location and race are taken into consideration.
- o Once background factors are considered, Hispanic men achieve lower levels of occupational earnings power than comparable non-Hispanics in three of the nine states considered here. In the remaining six states, Hispanic-non-Hispanic differentials in occupational earnings power are not distinguishable from zero. This finding is based on models which presume that Hispanics and non-Hispanics have equal occupational returns to schooling, experience, English language ability and other basic model variables.

I now turn my attention to the effects of schooling, experience, foreign birth, and English language ability on occupational earnings power. The question I pose now is, Do these variables have the same impact on occupational earnings power of Hispanic men as for non-Hispanic males?

HISPANIC BACKGROUND AND THE EFFECTS OF FOREIGN BIRTH AND OTHER VARIABLES ON OCCUPATIONAL EARNINGS POWER

Tables 5 through 8 present the effects of English language ability, foreign birth, schooling and experience on occupational earnings power. These tables have the same format as Table 2, which served as the primary vehicle for exposition of the research design for this study.

However, instead of containing R-squared statistics and n's for regression analyses, the cells of Tables 5 through 8 report the effects on occupational earnings power of different variables in the basic model. Each of these tables pertains to the effects of only one variable. Table 5 reports the effects of English language ability. Table 6 reports effects of foreign birth. Table 7 indicates the impact of schooling. And Table 8 gives the effects of length of labor market experience. The cells of these tables present these effects for different racial, ethnic and geographic subgroups of the SIE sample. As in Table 2, columns of these tables indicate the ethnic and racial group for which a given effect is estimated, and the way that ethnicity and/or race enters the equation. Rows of the tables indicate the geographic area for which effect is estimated, and the way that geography enters the regression equation.

Before turning to these effects, it is important to recall that earlier analyses fail to find any pattern of differences among Hispanic ethnicity groups, after adjustment for effects of variables in the basic model and geographic location. Accordingly, it is no longer reasonable to include dummy variables for these ethnicity groups in the regression equations. So conclusions about the effects of Spkeng, Forbor, Ed and Ex are drawn from models which do not include the four Hispanic ethnicity variables. But for the sake of completeness, columns one and five of Tables 5 through 8 contain effect estimates from regressions which include dummies for four Hispanic ethnicity groups.

English Language Ability

Table 5 presents the coefficients for Spkeng in all regressions in the analysis of male occupational earnings power. Below each coefficient is its t-statistic. Although Spkeng measures English language ability on an arbitrary six-point scale, recall that efforts to find another scaling of these six points failed to produce any increase in the explanatory power of Spkeng. Thus, while the coefficients for Spkeng are not measured in an intuitively appealing metric, group differences in the coefficient of this variable do indicate group differences in the impact of English language ability on occupational earnings power.

Column 2 presents the effects of English language ability on occupational earnings power of Hispanic men. To begin, look at t-statistics for coefficients of Spkeng in the state-specific analyses (the first nine rows of column 2). Notice that these t's are large -- the coefficient of Spkeng is statistically significant for Hispanics in all states but Florida and Colorado.[10] Also notice that the coefficients of Spkeng are large in all states but Florida. Even in Colorado, where statistical significance is marginal, a difference of only one point on the six-point English ability scale brings a 5.1 percent increase in occupational earnings power. In all other states except Florida, the effect of English language ability is higher,

[10] Since English language ability is expected to enhance occupational achievement, the coefficient of Spkeng is hypothesized to have a positive sign. Thus, a one-tailed test is used here. The coefficient in Florida fails the test at a 10 percent significance level. In Colorado, the coefficient passes at the 10 percent level, but fails at the 5 percent level. Coefficients in other states pass at levels of 2.5 percent or less.

reaching a peak of 0.1022 in California, which corresponds to a 10.8 percent increase in occupational earnings power for each one-point difference on the English language ability scale. Bearing in mind that the difference between speaking English "not at all" and "very well" corresponds to four scale points, the effect of English language ability seems to have an extraordinarily powerful effect on the pay levels of Hispanic men's occupations, except in Florida.

The small, statistically insignificant effect of Spkeng in Florida allows diverging interpretations. Three conclusions are available, and all are at least partially appropriate. First, Florida is the only state in which the effect of Spkeng fails to approach or achieve conventionally applied levels of statistical significance. So one could conclude that English language ability affects occupational earnings power of Hispanics in all states but Florida. Second, one could note that the n for the Florida analysis is small enough (98 cases) to make statistical significance a more severe test in Florida than in other states. Following this second line of reasoning, one might disregard the t statistic for Spkeng in Florida and interpret the effect of English language ability without regard for statistical significance. Making this choice, one would conclude that the effect of English language ability on Hispanic men's occupational earnings power is considerably smaller in Florida than in the other nine states examined here. And, third, one might argue that the unreliability produced by small samples necessitates full utilization of significance tests. Taking this third approach would, of course, dwell upon the insignificance of the coefficient for Spkeng in Florida, and the significance of English language ability in other states. But this

perspective would also lead one to calculate a confidence band around the coefficient of Spkeng in Florida. Taking this third approach, one would note that a 95 percent confidence interval around the coefficient for Spkeng in Florida covers values as high as 0.0951, giving insufficient basis to believe that the effect of Spkeng is any lower in Florida than in the other nine states.[11] In brief, there is statistical support for each of several conflicting views about the size of English language effects in Florida. Until larger samples are available for that state, the prudent course seems to be to put tentative faith in the coefficient estimates, but to follow the significance tests in leaving the door open for alternative interpretations: English language ability probably has a weaker effect on Hispanics' occupational earnings potential in Florida than in the other states considered here. And since English language ability is something more often lacking in Hispanic workers than in non-Hispanics, there seems to be some justification for concluding that the comparatively mild effect of English language ability in Florida provides an environment in which many Hispanics are less disadvantaged than they would be elsewhere in their quest for employment in well-paying occupations. In other states, the cost of low English language ability appears severe indeed for Hispanic men.

Other interesting information about language ability can be found in Table 5. For example, look at the coefficients of Spkeng for white non-Hispanics. Notice that these coefficients do not reach conventional

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[11] A chi square test for the equivalence of the coefficient of Spkeng (for Hispanic men) in all nine states produces a test statistic of 8.8547 with eight degrees of freedom. The null hypothesis that all nine coefficients are equal cannot be rejected at any conventional significance level.

levels of statistical significance in six of the nine states. In the nine states examined here, the mean of the coefficient for Spkeng is 0.0641 for Hispanics, but only 0.0165 for white non-Hispanics. So, not only are Hispanics more likely than non-Hispanics to be less than fluent in English, but the cost of low English ability is higher for Hispanics than for non-Hispanics, on the average, after holding constant other variables in the basic model.

Foreign Birth

Table 6 presents coefficients for Forbor, the variable which indicates whether or not SIE respondents are foreign born. Looking at the t-statistics for these coefficients, notice that in nearly every combination of state and ethnicity examined here, Forbor fails to show statistically significant effects on occupational earnings power. It is only in Nevada that Forbor shows significant effects for Hispanics, and this lone finding seems to be more indicative of a statistical quirk than a general pattern. Apparently the effects of foreign birth on occupational earnings power are mediated through English language ability.[12]

Schooling

Years of school completed enters the basic model directly in the variables Ed and Ed-squared (Ed2). Schooling also appears indirectly in Ex and Ex2, since these experience measures are calculated from respondents' age and years of school completed. Accordingly,

[12] The significant effects in the total sample regressions for New York should be disregarded as biased by aggregation - these effects are not significant when estimated separately for black non-Hispanics, white non-Hispanics, or Hispanics; but they do pass significance tests when data on all three groups are pooled.

measurement of the effects of schooling on occupational earnings power requires calculation of functions of the coefficients of Ed, Ed2, Ex and Ex2. Strictly speaking, these effect measures are partial derivatives of log occupational earnings power with respect to Ed. These partial derivatives are comparable to ordinary regression coefficients in a linear, additive specification in which the dependent variable is logged. That is, these effect measures indicate the rate at which occupational earnings power changes as Ed changes, other things in the equation being equal. The rate of change is expressed as proportional change in occupational earnings power per unit change in Ed.[13] However, because the effect of schooling on occupational earnings power is nonadditive and nonlinear, it is necessary to select values of Ed and Ex at which to evaluate the partial derivative. In the results shown in Table 7, I evaluate these effects at 12 years of school and 10 years of post-school experience. Table 7 presents the effects of schooling on occupational earnings power in the now-familiar layout which represents the basic design of this study.[14] Column 2 of Table 7 gives state-specific effects of schooling on occupational earnings power for Hispanic men only. Notice that these effects center around 0.04, which corresponds to a four percent change in occupational earnings power per additional year of school completed. More precisely, the mean effect of

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[13] See Stolzenberg, (1979), for a more detailed consideration of this and related interpretations. The proportional change in mean occupational earnings power per unit change in Ed is obtained by exponentiating the partial derivative and then subtracting one. As long as the derivative is between -.10 and +.10, the derivative itself is approximately equal to the difference between its exponentiated value and one.

[14] Table 7 does not present standard errors for these effect measures. Calculation of standard errors for these functions would have required additional software development, which was beyond the already-strained, limited resources available for this research.

schooling for Hispanics in the nine states is 0.0393, with a high of 0.0478 in New York, and a low of 0.0247 in California. The effect in California appears to be an outlier -- it is only about three-quarters the size of the next-lowest effect, and it is about six-tenths the size of the mean effect in the other eight states. After deleting California from the analysis, the mean schooling effect for Hispanics is 0.0409.

Now look at the schooling effects for non-Hispanic whites, in column 4 of Table 7. Notice that these effects are very similar to the schooling effects observed in the Hispanics-only analysis. In particular, the mean effect is 0.0392 for non-Hispanic whites, compared to 0.0393 for Hispanics. Except for the outlier state of California, state-specific schooling effects for Hispanics are paralleled by state-specific schooling effects for non-Hispanic whites: The Pearsonian coefficient of correlation between the effect of Ed for white non-Hispanics and the effect of Ed for Hispanics is 0.6517.[15] So it appears that in states other than California, the effect of Hispanic men's schooling on their occupational earnings power closely parallels that of non-Hispanic white men's schooling on occupational earnings power.

It is difficult to know if the Hispanic-non-Hispanic difference in the effect of Ed in California is a statistical quirk or a true difference. Because the sample size in California is large for both

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[15] This is the coefficient of correlation between the partial derivative for Hispanics and the partial derivative for non-Hispanic whites, over the first eight states. This coefficient is statistically significant at the 5 percent level (t with 6 degrees of freedom equals 1.943; one tailed test because a positive correlation is expected). Because schooling effects are measured with error, this correlation understates the association between the effect for Hispanics and the effect for non-Hispanics. Unfortunately, we lack standard errors for these effects and so are unable to correct the correlation for the deflating effect of unreliability.

Hispanics and white non-Hispanics, it seems reasonable to believe the numbers and conclude tentatively that effects of schooling on occupational earnings power in that state are smaller for Hispanics than for white non-Hispanics.[16] One might conjecture that the low effect of schooling for California Hispanics is caused by differences in educational quality: It is possible that the quality of schooling of California's substantially Mexican-born Hispanic population is lower than the quality of schooling of, say, the substantially Puerto Rican and Cuban-origin Hispanic populations of other states. But that is pure conjecture which I am not able to test with available resources and data. So the finding of this section is that the data show no systematic pattern of large Hispanic-non-Hispanic differences in the effects of schooling on occupational earnings power, except possibly in California.

Experience

Table 8 presents measures of the effect of labor force experience on occupational earnings power. Recall that experience is measured by potential years of post-school employment. Ex does not measure the quality of a worker's labor force experience, but is an indicator of time spent working. Because experience enters the basic model twice, in Ex and in Ex2, I again use partial derivatives to measure the effect of experience on occupational earning power. As in estimation of the

[16] I hesitate to attempt any extended comparison between the effects of schooling of black non-Hispanics and Hispanics. There are only 25 black respondents in Arizona, 21 in New Mexico, and 53 in Colorado, making parameter estimates for blacks in these states virtually worthless. Nonetheless, the mean of the partial derivatives for black non-Hispanics in the nine states is 0.0438 as compared to 0.0393 for Hispanics and 0.0392 for white non-Hispanics. However, the nine-state correlation between the effect for Hispanics and the effect for non-Hispanics is -0.5143. Deleting California lowers the mean to 0.0417 and drops the correlation to -0.1855, which is virtually identical to zero in such a small sample.

effects of schooling, the partial derivative is evaluated at 10 years of experience, a time when men's careers are well under way, but too soon for any kind of peaking to have begun.

Looking at columns 2, 3 and 4 of Table 8, notice that the effects of experience are generally in the range of one to two percent. Averaging state-specific effects over the nine states gives a mean of 1.337 for Hispanics, 1.124 for black non-Hispanics, and 1.689 for white non-Hispanics. I suspect that these differences would not withstand normal significance tests, and so I hesitate to make much of them beyond noting that white non-Hispanics appear to do best at converting their work experience into employment in higher-paying occupations, non-Hispanic blacks do the worst, and Hispanics fall somewhere in between. A correlation analysis similar to the one done above for the effects of schooling shows no significant associations between the effects for Hispanics, non-Hispanic whites and non-Hispanic blacks. If there are patterns in these effects, I do not discern them. So it does not appear that Hispanic-non-Hispanic differences in the effect of labor market experience are very large, or that they vary across states in meaningful ways.

HISPANIC-NON-HISPANIC DIFFERENCES IN OCCUPATIONAL EARNING POWER

So far, my consideration of Hispanic-non-Hispanic differences in occupational earnings power has focused on Hispanic-non-Hispanic differences in the effects on earnings power of schooling, experience, English language ability, foreign birth, and geographic location. I have found that these variables have somewhat different effects on Hispanics' and non-Hispanics' occupational achievement. Now I try to put all these findings together in a way that allows me to evaluate how

much of a Hispanic-non-Hispanic occupational gap is produced by these -- and other -- factors.

To make these comparisons, I use a procedure called regression standardization. The first step in regression standardization is to select some "standard" set of values on characteristics which appear as independent variables in the basic model. The second step is to "plug" those standard values into the regression equations estimated for the populations under consideration, multiplying standard values on basic model variables by their regression coefficients and summing the products (see Duncan, 1969, for an example of this common method). The result of this procedure is an estimate of the mean value on the regression dependent variable of individuals (a) who are from the population on which the regression was estimated and (b) who have the characteristics of the standard. By applying the same standard to regressions estimated over different populations, one can compare the probable outcomes experienced by hypothetical individuals who have the same, specified characteristics, but who are drawn from different populations.

I select two standards: The first, I will call the "standard native." This person has completed 12 years of schooling, 10 years of labor force experience, speaks English "very well" but did not grow up in a home where English was the only language spoken (scores 5 on Spkeng), and was not born in a foreign country. The second standard I will call the "standard immigrant." The standard immigrant is identical to the standard native, except that he was born in a foreign country and speaks "only a few words" of English. I "plug in" the standard immigrant and the standard native to the state-specific equations for

Hispanics and the state-specific equations for non-Hispanic whites. It is important to bear in mind that the standard native and the standard immigrant have characteristics chosen to facilitate comparisons -- they are not empirically observed averages.

Table 8a presents results of the standardizations. Since occupational earnings power is logged in the regression analyses, standardized values presented in Table 8a are measured in log dollars. Since log dollars do not have great intuitive appeal, my comments focus on differences between standardized values, which indicate proportional differences in occupational earnings power. Different columns in Table 8a report results from different states. Different rows identify different standardizations, or differences between different standardizations. The first and third rows use the standard native as the standard. The first row reports results of plugging the standard native into the Hispanic coefficient estimates in each state. The third row reports the result of plugging this same standard native into the non-Hispanic coefficients. The second row reports results of plugging the standard immigrant into the Hispanic coefficients. The fourth row gives results of plugging the standard immigrant into the non-Hispanic equations.

The bottom row of Table 8a gives the difference between Hispanic and non-Hispanic outcomes for the standard immigrant. Negative differences indicate that the standard immigrant does worse as a Hispanic than as a non-Hispanic. Positive differences indicate higher occupational earnings potential as a Hispanic than as a white non-Hispanic. Notice that the standard immigrant does much worse on occupational earnings potential than his non-Hispanic counterpart,

except in Texas and Colorado, where the Hispanic does better than the non-Hispanic. For example, the occupational earnings power of the standard immigrant is about 20 percent lower for Hispanics in New York than non-Hispanics in that state.[17] The mean value in the bottom row of Table 8a is -0.1249, indicating an average difference of about 12 percentage points -- in favor of non-Hispanics -- in occupational earnings power.

Results for standard natives are strikingly different. In four of the nine states, the standard native does better as a Hispanic than as a non-Hispanic. There are only two states in which occupational earnings potential of Hispanic and non-Hispanic standard natives differs by more than 5 percent -- about 6.3 percent in favor of Hispanics in New Jersey and about 6.3 percent in favor of non-Hispanics in Colorado. The mean difference in the nine states is -.0078, which corresponds to a 0.8 percent difference in occupational earnings power (favoring non-Hispanics).

These results are remarkable indeed. The findings for standard immigrants suggests that even if immigrants have completed high school, their occupational earnings potential lags considerably behind that of comparable non-Hispanics. In analyses of women's or blacks' occupational attainment, such findings are often taken as evidence of discrimination. But the findings for standard natives suggests that high-school-educated Hispanics who speak English very well do not achieve levels of occupational earnings power much different from those of similar white non-Hispanics. The results for standard natives could not be taken as evidence of discrimination.

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[17] The ratio of Hispanic to non-Hispanic occupational earnings potential is equal to the exponentiated value of the difference between their log occupational earnings potentials. Exponentiating -.2185 and subtracting one yields -.1963, or about -20 percent.

What is truly remarkable here is that poor English language ability and foreign birth are occupational handicaps which may well remedy themselves with the birth of a new generation. Though immigrants may speak only poor English, their American-born children seem to have a good opportunity to learn to speak English very well.[18] And, of course, these children are not foreign born.

SUMMARY OF FINDINGS ABOUT OCCUPATIONAL EARNINGS POTENTIAL

The major findings of this section can be summarized as follows:

- o I found no evidence that ethnic subgroups of the Hispanic male labor force differ in their occupational earnings potential, once basic model variables and geographic location are taken into consideration.
- o English language ability has a large effect on the occupational earnings potential of Hispanic men, except perhaps in Florida. For white non-Hispanics the effect of English language ability is not large.
- o The data show no pattern of systematic effects of foreign birth on occupational earnings potential.
- o The effect of schooling is about the same for Hispanic and white non-Hispanic men. At 12 years of schooling, the effect of an additional year of education is a change of about 0.4 percent in occupational earnings potential, net of other factors considered here.

[18] Note that the standard native speaks English "very well," but did not grow up in a household in which English was the normal language. Presumably, the children of immigrants' children would grow up in households in which English is the normal language.

- The effects of experience are modest and do not seem to be different for Hispanic than for white non-Hispanic men.

Probably the most consequential of these findings is the large English language ability effect for Hispanics. I will return to the implications of this and other findings in the conclusions of this report, where I address policy implications.

VI. OCCUPATIONAL EMPLOYMENT STABILITY

In this section, I continue to examine the effects of Hispanic background on the workers' occupational achievement. As earlier, the unit of analysis remains the individual SIE respondent, and the dependent variable is a property of the occupation in which the individual is an incumbent. However, the property which concerns me now is the stability of employment rather than the earnings power which an occupation provides for its incumbents. As discussed earlier, I measure occupational employment stability with the proportion of male workers in the occupation who worked 50 to 52 weeks during the Census year (see earlier sections of this report for a complete description of this variable).

My analyses of occupational employment stability follow the same design as my analyses of occupational earnings power. The tables which present the results of these studies follow the same format as the tables which present the results the earnings power regressions. However, my discussion of tabulated results can be more brief now, since major ideas have been introduced already, and readers are familiar with the basic research design. Once again, I begin by examining the R-squared statistics for analyses of occupational earnings power.

THE EFFECT OF HISPANIC ETHNICITY ON OCCUPATIONAL EMPLOYMENT STABILITY

Table 9 presents R-squared statistics and sample sizes (n's) from regression analyses of occupational employment stability. The number of cases in each cell is identical to the n in the corresponding cell for the earnings power analyses. Thus, the limitations imposed by small

numbers of Hispanic respondents in some states (e.g., Florida), and the stability of estimates allowed by larger samples in other states (e.g., California) remain. Once again, the black-boxed center section of Table 9 reports regressions in which independent variables are limited to the independent variables of the basic model: Ed, Ed-squared, Ex, Ex-squared, Spkeng, and Forbor. Analyses within the black box are specific to states, racial groups, and race-ethnicity groups, so they implicitly control for race, Hispanic background and geographic location.[1]

Analyses corresponding to cells outside the black box amalgamate respondents from different states or race-ethnicity groups. These "outside" cells include additional variables representing state of residence and/or race and/or Hispanic background and/or Hispanic ethnicity subgroup.

The initial difference between Table 9 and the corresponding table for the earnings power analysis is that the R-squared statistics are considerably smaller in the employment stability regressions than for the earnings power analyses. For example, consider the state-specific analyses for Hispanic men shown in column two of Tables 2 and 9. In the analyses of occupational earnings power, the mean proportion of variance explained is 29.7 percent. In the analyses of occupational employment stability, the mean proportion of variance explained is about a third as large, 10.4 percent. Similarly for the analyses done for white non-Hispanics: The mean proportion of variance explained in the state-specific regressions is 32.4 percent for occupational earnings power,

[1] Recall that analyses within the black box are done separately for Hispanics and non-Hispanics, but not separately for members of different Hispanic ethnicity groups.

and 9.1 percent for occupational employment stability. The basic model fits the earnings power data considerably better than the employment stability data. These differences could indicate a general pattern of weak effects of basic model variables on employment stability. The low R-squareds also could mean nothing more than larger amounts of random variation and error measurement in employment stability than in occupational earnings power.

Columns 1 and 2 of Table 9 report R-squareds for state-specific analyses of occupational earnings power of Hispanic men only. Analyses reported in column 1 include dummy variables representing ethnic subgroups of the Hispanic population. Analyses reported in column 2 do not include indicators for these ethnic subgroups. Comparing columns 2 and 1 of Table 9, note that there is not much change in R-squared when the four dummy variables for Hispanic ethnicity are added to the basic model. Similar results appear when the model is fitted to the total sample, as reported in columns 5 and 6. More formally, I carried out F tests for the statistical significance of the four dummy variables representing ethnic subgroups of the Hispanic sample. In the state-specific analyses done on Hispanics only, it is impossible to reject the hypothesis that all four ethnicity dummies have zero effect, except in New Jersey (5 percent significance level). Nor are the Hispanic ethnicity effects significant (5 percent level) in the pooled nine-state data either, whether or not the regressions include dummy variables representing the states (last two rows of Table 9). And in the analyses which pool together Hispanics and non-Hispanics (reported in columns 5 and 6 of Table 9), the four dummy variables for Hispanic ethnic subgroup are not significant in any of the regressions, including New Jersey.

As earlier, the one anomalous significance test for New Jersey seems to be more of a statistical quirk, or a peculiarity of this one state, than an indication of patterned subgroup differences in occupational achievement among the Hispanic population. So the results reported in Table 9 provide no support for the hypothesis that ethnic subgroups of the population differ in their levels of occupational employment stability, once the effects of basic model variables are held constant. This finding is entirely consistent with our earlier failure to find evidence of patterned differences in occupational earnings power among Hispanic ethnic subgroups, once the effects of basic model variables and geography are held constant.

Tables 10 and 11 present actual regression coefficients and t-statistics for the four Hispanic ethnicity dummy variables. Table 10 reports results from analyses reported in column 1 of Table 9 -- these regressions are based on Hispanic men only. Table 11 reports results from analyses reported in column 5 of Table 9, which were fitted to data on both Hispanics and non-Hispanics. Looking first at the t-statistics in Table 10, note that nearly all of the ethnicity coefficients are statistically insignificant. At a 5 percent significance level (two tailed test), significant effects are found only for Mexicans in New Mexico and Puerto Ricans in Colorado and Nevada. The remaining 37 ethnicity coefficients in Table 10 fail to achieve statistical significance. Once again, these results do not in any way suggest that there are patterned differences in occupational achievement of Hispanic ethnicity groups, once the effects of geographic location, schooling, length of labor force experience, foreign birth and English language

ability are taken into account. As in the occupational earnings power analyses, insignificant findings in states with both large and small samples suggests that the absence of significant ethnicity coefficients results from an absence of ethnicity effects, rather than a shortage of data cases. The three anomalous significant coefficients appear to be statistical quirks or local peculiarities, rather than indicators of patterned ethnic differences.

Columns 2 through 6 of Table 11 present ethnicity coefficients from analyses which include both Hispanic and non-Hispanic men. R-squareds for these analyses were first reported in column 5 of Table 9. In addition to the four Hispanic ethnicity variables and the basic model variables, these regressions contain the dummy variable for Hispanic background, H, and two dummy variables for race. Look first at the t-statistics for the Hispanic ethnicity coefficients in Table 11. Notice that most of the t's are small. Indeed, significant coefficients for the Hispanic ethnicity dummies appear only for Mexicans in New Mexico, Puerto Ricans in Colorado and Nevada, and Central and South Americans in New Jersey (5 percent significance level, two-tailed test). The remaining 28 Hispanic ethnicity coefficients do not pass significance tests.[2] Once again, it seems, there is no discernible pattern of ethnic differences in occupational employment stability among Hispanic men, once effects of basic model variables and state of residence are held constant.

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[2] Note also that the Hispanic indicator variable, H, is not significant in eight of the nine state-specific regressions which include the four Hispanic ethnicity variables. For similar results when data from all nine states are pooled, look at the bottom two rows of Table 11. Notice that the none of the Hispanic ethnicity dummies have significant coefficients in regressions fitted to the pooled analyses.

THE EFFECT OF BEING HISPANIC ON THE
OCCUPATIONAL EMPLOYMENT STABILITY OF MALES

Column 1 of Table 4 shows the coefficients and t-statistics of H, a dummy variable for Hispanic identity, in regression analyses fitted to both Hispanic and non-Hispanic men. These regressions were first reported in column 6 of Table 9. Unlike the analyses done on Hispanics only, these regressions presume that the effects of basic model variables, geography, and race are the same for Hispanics and non-Hispanics. That presumption is the subject of considerable additional analysis below, but for now it is useful to entertain it for purposes of argument and to examine the coefficient for H in the nine states under consideration. In the next section of this report I consider Hispanic-non-Hispanic differentials in the effects of basic model variables on occupational employment stability.

Looking first at the t-statistics in column 1 of Table 11, notice that t-statistics for H are small in most states. At a 5 percent significance level (two tailed test), H has a statistically significant effect on occupational employment stability in only two states, New Jersey and California. At a 10 percent level, H is significant in Nevada and New Mexico too (two tailed test). However, the large n's for these analyses, and especially the large n for Hispanics in New Mexico, suggest that a 5 percent significance level is adequately generous. In particular, note that the coefficients for H in both pooled 9-state analyses fail to pass a standard two-tailed significance test at a 5 percent significance level.

Since occupational employment stability is the percentage of males in an occupation who worked 50-52 weeks in the Census year, the

coefficients for H are measured in units of percentage points. Thus, in California, once the effects of basic variable model variables and race are held constant, the occupational employment stability of Hispanics is about 4.9 points lower than that of non-Hispanics. In New Jersey, the differential is about 5.5 percentage points.

An alternative interpretation of these effects is obtained by dividing the coefficients by the mean of occupational employment stability in the group for which the regression is fitted. The resulting quotient is the proportional change in employment stability (evaluated at the mean) produced by Hispanic status. The proportional change approach produces proportional effects of 7.97 percent in New Jersey and 7.12 percent in California.

Proportional effects of 7 or 8 percent may seem large to some readers and small to others -- it is difficult to give the California and New Jersey effects any more intuitive appeal without becoming purely subjective. But the total absence of significant effects for H in seven of the nine states, and in the pooled nine-state analyses too, does not suggest broad patterns of unexplained disparity between Hispanic and non-Hispanic men's occupational achievement. At most, these analyses suggest that such differentials are limited to California and New Jersey, where they are, in my opinion, moderate compared to unexplained differentials experienced by blacks, women and other groups which are disadvantaged in their labor market achievement. Once again, these results are consistent with my findings about Hispanic-non-Hispanic differences in occupational earnings power.

HISPANIC BACKGROUND AND THE EFFECTS OF SCHOOLING, LABOR FORCE EXPERIENCE, FOREIGN BIRTH AND ENGLISH LANGUAGE ABILITY ON OCCUPATIONAL EMPLOYMENT STABILITY

Tables 12 through 15 present the effects of basic model variables on occupational employment stability. Table 12 gives information about the effects of English language ability only. Table 13 reports the effects of foreign birth. Table 14 indicates the impact of schooling. And Table 15 shows the effects of length of labor force experience. These tables follow the now-familiar format of Table 2, which presents the design of this study. As in Table 2, columns of Tables 12 through 15 indicate the ethnic or racial group for which an effect is calculated, as well as the way that ethnic and race dummy variables enter the regression analysis. Rows of these tables indicate the geographic area for which the effect is estimated, and the way that geography enters the regression equation. In these tables, each cell presents an effect for a different subgroup of the sample, or from a different regression specification.

Before turning to these effects it is important to recall that my earlier analyses fail to detect any pattern of differences among Hispanic ethnicity groups, after adjustment for effects of variables in the basic model and geographic location. Accordingly, it is no longer reasonable to include dummy variables for these ethnicity groups in the regression equations. So conclusions about the effects of Spkeng, Forbor, Ed and Ex are drawn from models which do not include the four Hispanic ethnicity variables. But, for the sake of completeness, columns 1 and 5 of Tables 12 through 15 present effect estimates from regressions which include dummies for four Hispanic ethnicity groups.

English Language Ability

Look first at column 2 of Table 12. Starting with t-statistics, notice that the effects of Spkeng on Hispanic men's occupational employment stability are statistically significant in five of the nine states -- New Jersey, Texas, Colorado, Arizona and Nevada -- and insignificant in the remaining four.[3] This pattern of significant and insignificant effects of Spkeng is not easy to interpret. What creates effects of English language ability in New Jersey but not in the adjacent state of New York? What creates effects in Nevada but not in adjacent California?

Perhaps this peculiar pattern of significance test outcomes results from a weak indicator for occupational employment stability. A weak indicator would have a relatively large random component, which would tend to produce small t-statistics. A full-blown test of this explanation would be a major undertaking and is beyond the resources available to this project. But the small R-squared statistics for the employment stability regressions are consistent with this interpretation.[4]

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[3] One tailed test because positive effects of language ability are expected; 5 percent significance level.

[4] The larger the proportion of the variance in a variable that is random, the smaller the proportion of variance in the variable which can be explained by other variables (i.e., the lower the upper bound on the R-squared of a regression model of that variable). However, the R-squared statistics are also consistent with the argument that Spkeng and other basic model variables just do not have very strong effects on occupational employment stability. An absence of strong effects would also produce insignificant coefficients, or perhaps coefficients weak enough to be close to the line which divides significant from nonsignificant; random shocks would drive some coefficients below the significance level, with no apparent rhyme or reason.

To investigate further the apparent state differences in the effect of English language ability on Hispanic occupational achievement, I use a chi square test for differences among the eight largest state-specific coefficients of Spkeng in the Hispanics-only analyses. (The smallest effect is for New Mexico.) Formally, this is a test of the hypothesis that all of the eight coefficients are equal to the mean of the eight. At any conventional significance level, the test fails to find significant differences between these eight coefficients and their mean. That mean is 3.4335 and it has a t-statistic of 1.68, which makes it statistically significant at the 5 percent level (one-tailed test).[5]

So while the effects of Spkeng for Hispanics cannot be distinguished from zero in some states, in all states but New Mexico these effects cannot be distinguished from the statistically significant, eight-state mean of 3.4335. This finding suggests that the apparently random pattern of insignificant coefficients for Spkeng is probably just that -- random -- and one need not concoct an explanation of why English language ability affects occupational employment stability in, say, New Jersey but not New York. The insignificant effect in New Mexico does, however, persist.

Having dwelled upon significance tests at length, I now turn my attention to the size of the English language ability effect on the occupational employment stability of Hispanic men. Remember that

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[5] I also performed a test for the equivalence of the coefficients for Spkeng in the Hispanics-only regression in all nine states. The chi square statistic is 4.57, with eight degrees of freedom, indicating that there is no meaningful significance level at which the the coefficients could be considered different from their mean. The nine-state mean is 3.2277, with a t-statistic of 1.6327. While not significant at the conventional 5 percent level, the mean coefficient is significant at the 5.1 percent level.

occupational employment stability is measured in a metric of percentage points -- it is the percent of male occupational incumbents who worked 50 to 52 weeks in the Census year. Recall also that the difference between speaking "only a few words" of English and speaking English "very well" corresponds to a difference of three points on Spkeng. Multiplying three times the eight-state mean coefficient of Spkeng gives an effect of 10.3 percentage points.

However, putting the effect of Spkeng into a proportional metric seems to give it more intuitive appeal. The proportional effect is measured at the mean of occupational employment stability in each state except New Mexico. The average of these proportional effects is 0.167.[6] In other words, in these eight states, the average net effect of improving language ability from "just a few words" of English to speaking English "very well" would be an increase in occupational employment stability of about one-sixth. This effect seems to be substantial, but hardly as strong as the impact of English language ability on the occupational earnings power of Hispanics.

To conclude this discussion of the effects of Spkeng on occupational employment stability, turn to column 4 of Table 12. Notice that the t-statistics are all small. English language ability has no significant effects on occupational employment stability of white non-Hispanics in any of the nine states examined here. Once again, Hispanics are not only less likely to speak English well than non-Hispanic workers, but I find that the cost of poor English language ability is higher for Hispanics than for non-Hispanics.

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[6] At the mean, assuming a coefficient of 3.4335 for Spkeng, the proportional effects of a three-point change in Spkeng are as follows: NY, .166; NJ, .172; FL, .145; TX, .166; CO, .158; AZ, .167; NV, .189; CA, .171. The average of these eight values is 0.167.

Foreign Birth

Table 13 presents the coefficients for Forbor in the regression analyses of occupational earnings power. Looking first at column 2, notice that t-statistics for the effects of Forbor are generally small. For Hispanic men, only in Nevada is the coefficient for Forbor statistically significant (5 percent level, two-tailed test). Looking at column 4, notice that t-statistics for the Forbor coefficient are generally small for white non-Hispanics too. For white non-Hispanic men the effect of Forbor is statistically significant only in New Mexico for white non-Hispanics. The significant coefficients for non-Hispanic whites in New Mexico and Hispanics in Nevada appear to be nothing more than peculiarities or statistical quirks, and certainly not an indication of patterned effects of foreign birth on the occupational employment stability of Hispanic or non-Hispanic men in the nine states considered here.

Schooling

Table 14 gives the effects of schooling on occupational employment stability. As before, these measures are partial derivatives which are evaluated at 12 years of schooling. They indicate the change in occupational employment stability per additional year of school completed. Since occupational employment stability is measured in percentage points, these effects are measured in percentage points too. Unfortunately, I do not have standard errors for these effect measures, and so it is not possible to compute significance tests for them. But if prior results with occupational employment stability are a guide, differences among states in the effects of schooling are probably not significant.

For Hispanic men, the mean effect of schooling in the state-specific regressions is 1.0668. For white non-Hispanic men, the mean effect of schooling in the state-specific regressions is virtually the same, 1.0760.[7] There does not seem to be any differential between Hispanics and white non-Hispanics in the effect of schooling on occupational employment stability.

One final question about the effects of schooling is extremely important: Now that we have some evidence that these effects are about the same for Hispanics and non-Hispanic whites, are they big enough to be considered important for either group? To improve the intuitive appeal of these effect measures, I convert them to proportional effects. That is, in each state, I divide the partial derivative for Hispanics by the mean of occupational employment stability for Hispanics in that state, and I divide the partial derivative for white non-Hispanics by the mean of occupational employment stability for white non-Hispanics in that state. The resulting quotients indicate the proportional change in occupational employment stability per year of additional schooling. For Hispanics, the mean of these state-specific proportional effects is 0.0172. For white non-Hispanics, the mean is nearly the same, 0.0154.[8]

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[7] The standard deviation of the effects for Hispanics is 0.4295. For white non-Hispanics, the standard deviation is virtually identical, 0.4284. The correlation between the Hispanic and white non-Hispanic state-specific schooling effects is -0.1286, which is exceedingly small for an n of 9, and is statistically indistinguishable from zero at any conventional significance level, one or two tailed test.

[8] For Hispanics and white non-Hispanics, respectively, the state-specific proportional effects are as follows: NY: .0126, .0211; NJ: .0267,.0228; FL: .0065, .0105; TX: .0147, .0206; CO: .0186, .0206; NM: .0238, .0031; AZ: .0274, .0103; NV: .0125, .0145; LA: .0120, .0151. These effects are evaluated at 12 years of schooling.

Characterizations of numbers as large or small are necessarily subjective, and readers might find these effects substantial. However, they seem small indeed to me, since they indicate that the effect of completing 12 years of school (rather than 11) is to increase occupational employment stability by a proportion of only three two-hundredths. For purposes of comparison, recall that the net effect of a change in English language ability from "just a few words" to speaking English "very well" raises the occupational employment stability of Hispanics by about one-sixth--an effect nearly 10 times as large as the schooling effect. So, in comparative as well as absolute terms, schooling does not seem to be an important determinant of occupational employment stability, or of Hispanic-non-Hispanic differences in occupational employment stability.

Experience

Table 15 shows the effect of an additional year of experience on the occupational employment stability of SIE respondents. Once again, these effects are partial derivatives evaluated at ten years of experience. As with the effect of schooling, I am unable to present t-statistics for these experience effects. But if other variables in these equations can serve as a guide, the effect of experience on occupational employment stability does not seem to vary substantially from state to state. Indeed, the effect of experience seems small, even inconsequential, for Hispanics, and very nearly so for white non-Hispanics. More specifically, the mean effect of an additional year of experience is an increase of 0.42 points in occupational employment stability for Hispanics, and 0.63 points for white non-Hispanics.

Following the by-now-familiar procedure for expressing these effects as proportional changes in occupational employment stability gives a mean effect of 0.0068 for Hispanics and 0.0090 for white non-Hispanics. That is, an additional year of experience increases occupational employment stability by about one-one-hundred and-forty-seventh for Hispanics, and by about one-one-hundred and-eleventh for white non-Hispanics.[9] These effects seem so small that I see no point to discussing them further. If they are statistically significant, which is doubtful, then they surely seem to be substantively insignificant.

IN SUMMARY: HISPANIC-NON-HISPANIC DIFFERENCES IN OCCUPATIONAL EMPLOYMENT STABILITY

My findings about occupational employment stability are generally consistent with my earlier findings about occupational earnings power. Occupational employment stability differences among Hispanic ethnic groups do not persist after the effects of schooling, labor force experience, English language, foreign birth, and geographic location are held constant. The few ethnic differences between Hispanic ethnicities that survive significance tests appear to be local peculiarities or statistical quirks rather than evidence of patterned differences.

In other analyses I examine Hispanic-non-Hispanic differences in occupational earnings power. Some of these analyses do, and some do not, presume that basic model variables affect the employment stability of Hispanics in the same way they affect the employment stability of non-

[9] The proportional effect is evaluated at the mean of occupational employment stability in each state by dividing the partial derivative by the mean of occupational employment stability. Proportional effects for Hispanics and white non-Hispanics, respectively, are as follows: NY: .0085, .0072; NJ: .0108, .0083; FL: .0043, .0091; TX: .0099, .0069; CO: .0063, .0101; NM: .0076, .0119; AZ: -.0003, .0085; NV: .0052, .0110; CA: .0092, .0077.

Hispanics. In the analyses which presume equal effects for Hispanics and non-Hispanics, controlling for geographic location and basic model variables cause Hispanic-non-Hispanic differentials in occupational employment stability to vanish in seven of the nine states included in this study.

In the analyses which do not presume that basic model variables have equal effects on the occupational achievement of Hispanics and non-Hispanics, my main findings are as follows:

- o English language ability has strong effects on occupational employment stability for Hispanics, but not for white non-Hispanics.
- o Net of other variables in the model, foreign birth has no direct effect on occupational employment stability of Hispanics or non-Hispanics. If foreign birth has any effects at all, they are mediated through English language ability, schooling, experience or geographic location after immigration to the U.S.
- o The effect of schooling on occupational employment stability is about the same for Hispanics and non-Hispanics, and is very small. Large increases in the schooling of Hispanics would have only very modest effects on their occupational employment stability.
- o The effect of length of labor force experience on occupational employment stability of Hispanics is so small as to be inconsequential, in my opinion. For white non-Hispanics, the effect is nearly as small, and insufficient to have even modest impact on occupational employment stability.

Once again, English language ability appears to be the main driving force in explaining occupational differentials between Hispanics and non-Hispanics who live in the same state. If Hispanics end up in occupations with less stable employment patterns than the occupations of comparable non-Hispanics, it is probably because English language ability is both more important in explaining the occupational achievement of Hispanics, and less likely to be present in Hispanic workers than in non-Hispanic workers.

VII. OCCUPATIONAL SOCIOECONOMIC STATUS (SES)

In this section, I examine the effects of Hispanic background on occupational socioeconomic status. Occupational status is the last of the three occupational properties which are considered in this report. With some straightforward exceptions, the results reported in this section are much like those reported for other occupational characteristics. This similarity of findings, combined with repetition of the same research design and methodology I have already described at length, allow me to presume the reader's familiarity with the method, data and perspective which I apply to this problem. So I will be brief here, in the belief that extensive explanations are not necessary and that brevity will involve no loss of clarity.

HISPANIC ETHNICITY, HISPANIC BACKGROUND AND SES

Turn first to Table 16, which presents R-squared statistics and n's for the regression analyses of SES. N's are identical to sample sizes in the previous analyses. But the R-squareds are the largest of any reported yet. As before, I start by looking for effects of membership in different Hispanic ethnicity groups on the occupational achievement of Hispanic men. Comparing the R-squareds in column 1 with those in column 2, notice that adding four Hispanic ethnicity dummy variables has almost no effect on the variance explained by the basic model in the Hispanic state-specific analyses. Formal significance tests confirm this observation: The Hispanic ethnicity effects are not significant at any conventionally used significance level in any of the nine states.[1] The insignificance of these effects in states with large Hispanic

[1] That is, the null hypothesis that all four coefficients are

samples once again suggests that it is an absence of ethnicity effects, and not small sample size, that is giving negative test results. And the microscopic effects of these Hispanic ethnicity variables on the R-squareds in both large and small states suggests that whether or not these effects are statistically significant, they are substantively trivial.

Similar results occur in the state-specific analyses which pool Hispanic and non-Hispanic male workers. Comparing R-squareds for columns five and six of Table 16, note once again that the four Hispanic ethnicity dummies add only trivially to the variance explained by basic model variables, dummies for race and a single dummy for Hispanic background. Formal significance tests are negative in all nine of these state-specific analyses, as well as in the two regressions in which data from all nine states are pooled.[2] In short, these analyses show no support for the hypothesis that different ethnic subgroups of the Hispanic male labor force differ in their occupational socioeconomic status, once the effects of geographic location and variables in the basic model are held constant.

Table 17 presents the actual coefficients for the Hispanic ethnicity variables in the state-specific, Hispanics-only analyses. Out of 32 estimated coefficients in these nine regressions, not one is significantly different from zero (two tailed test, 5 percent significance level). So it does not seem that the F-tests and R-squared statistics have buried significant effects for one ethnic group among insignificant effects for the others.

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equal to each other and to zero cannot be rejected at the 1, 5 or 10 percent significance level. A separate test is computed in each state.

[2] The F tests are the same as those described in the last footnote, as are their outcomes.

Columns 2 through 6 of Table 18 present ethnic subgroup effects from the state-specific analyses in which Hispanic and non-Hispanic male workers are pooled together. These results are the estimated coefficients of the Hispanic ethnicity variables, along with their t-statistics. Out of 41 ethnicity coefficients in these regressions, only one has a statistically significant effect (two-tailed test; 5 percent significance level). So, once again, the R-squared statistics seem to have concealed nothing: The Hispanic ethnicity coefficients provide no empirical support for the hypothesis that ethnic subgroups of the male Hispanic labor force differ in their occupational socioeconomic status, once the effects of geographic location, schooling, length of labor force experience, English language ability, and foreign birth are held constant.

Column 1 of Table 18 presents the coefficients of H from state-specific analyses of pooled data on Hispanic and non-Hispanic men. These analyses do not include dummy variables for ethnic subgroups of the Hispanic population. Only in California is the coefficient for H statistically significant (5 percent level, two tailed test). This lone effect from California is difficult to interpret by itself; I merely take note of it and conclude that, except in California, these results do not support the hypothesis that Hispanic men's occupational status differs from the occupational status of non-Hispanic men, once the effects of geographic location and basic model variables are held constant.

EFFECTS OF ENGLISH LANGUAGE ABILITY, SCHOOLING, LENGTH OF LABOR FORCE EXPERIENCE AND FOREIGN BIRTH

I now turn to Hispanic-non-Hispanic differences in the effects of English language ability, schooling, length of labor force experience, and foreign birth on occupational SES. As in the analyses of occupational earnings power and occupational employment stability, my finding of no Hispanic ethnic subgroup effects makes it inappropriate to look for these differences in equations which include dummies for Hispanic ethnic subgroups. Thus, while the tables in this section are based on equations with and without Hispanic ethnic dummies, my discussion and conclusions focus only on the equations which do not include the ethnic subgroup variables. Results from equations with subgroup dummies are included in the tables for completeness only.

English Language Ability

Looking at column 2 of Table 19, notice that t-statistics are not uniformly large. Indeed, the Hispanics-only equations show significant effects of Spkeng in New York, Texas, Arizona, Nevada and California, and insignificant effects in New Jersey, Florida, Colorado and New Mexico (one-tailed tests, 5 percent significance level). However, the effect for New Jersey is significant at the 10 percent level.[3] Given the small sample size there, a 10 percent level does not seem at all unreasonable. So the state-specific t-tests suggest that English language ability has significant effects on occupational SEI in six of the nine states.

[3] In addition, the coefficient of Spkeng in New Jersey is not significantly different from the coefficient in the adjacent state of New York (t = 0.9954; two tailed test; any conventionally applied significance level).

Because SEI is measured on a arbitrary scale which lacks intuitive appeal, it is perennially difficult to state the effects of SEI on other variables in an intuitively appealing metric. problem. The usual sociological solution is to express effects in standardized units, such as standard deviations of change in SEI per standard deviation of change in Spkeng. But the standardized effects approach bogs down when comparisons are made between groups which do not have identical standard deviations on both independent and dependent variables.[4] Perhaps the most workable solution is to estimate the effect on SEI of some intuitively meaningful change in Spkeng, and then to identify two occupations which are about as far apart on the SEI scale as that effect.

As before, I use a three-point difference on Spkeng to represent a large change in English language ability. Three points represents the difference between speaking "only a few words" of English and speaking the language "very well." Table 19 shows that the strongest effect of Spkeng on Hispanic men's SEI is in New York. In New York, a three-point change in Spkeng would produce about a 12-point change in

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[4] To illustrate the problem, suppose that there were more variance in English language ability of Hispanics than non-Hispanics, but more variance in occupational status of non-Hispanics than Hispanics. Suppose also that a one-point change on the Spkeng scale produced exactly the same number of points of change in the SEI scores of Hispanics and non-Hispanics. Under these conditions, the standardized effect of Spkeng would be larger for Hispanics than for non-Hispanics, even though a one-point change in Spkeng would lead to the same change in occupational SEI for both groups. These difficulties apply to comparisons between states as well as to comparisons between Hispanics and non-Hispanics. See Duncan (1969) for a related example; Duncan analyzed socioeconomic status differences between blacks and whites using standardized effects, but his major conclusions were drawn from analyses of earnings measured in dollars rather than in standard deviations of the distribution of dollar earnings.

SEI--roughly the difference between the occupations laborer and carpenter. In Florida, where the effect of Spkeng on SEI is weakest, a three-point change in Spkeng would produce about a four-point change in SEI--roughly the difference between laborer and hospital attendant.[5]

The mean coefficient for Spkeng in the nine state-specific regressions fitted to just Hispanics is 2.4651. Three times this coefficient yields an effect about halfway between the effects in Florida and New York. To me, the average effect seems modest, though perhaps it is best to leave to each reader the characterization of these effects as large or small.

Turn now to the effects of Spkeng on SEI for white non-Hispanics reported in column 4 of Table 19. Notice that statistically significant coefficients are obtained only in New Jersey and Colorado (one tailed test, 5 percent significance level). These findings do not seem to indicate a pattern of strong English language ability effects on occupational SEI for white non-Hispanics. Indeed, the data suggest that English language ability has nc effects on SEI for white non-Hispanic men. So while it may be difficult to characterize the effects of Spkeng as strong or weak for Hispanics, it is straightforward to note that English language ability undoubtedly has more of an effect on SEI for Hispanics than for white non-Hispanics.

Foreign Birth

Table 20 presents the coefficients for Forbor. Looking at the t-statistics for these coefficients in column 2, notice that Forbor does not have a statistically significant effect on the SEI of Hispanics in

[5] These comparisons are necessarily crude. See Blau and Duncan (1967:122-3) for the source of these examples.

any of the nine states considered here (5 percent level, one tailed test). Looking in column 4, notice that the coefficient for Forbor is statistically significant only in New Mexico (5 percent level, one tailed test). This one significant coefficient seems very much a peculiarity or statistical quirk rather than an indication of patterned effects of foreign birth on occupational socioeconomic status.

Schooling

Table 20 shows the effect of schooling on SEI, in SEI points per additional year of school, evaluated at 12 years of school completed and 10 years of labor force experience. The mean of the nine state-specific schooling effects is 3.7546 for Hispanics and 3.6931 for white non-Hispanics. Although there is more state-to-state variation in these effects for Hispanics than for white non-Hispanics, the variability does not seem substantively significant.[6] That is, it seems fair to summarize these results as showing that for both Hispanics and non-Hispanics, there is about three to four points of change in occupational SEI per additional year of schooling, other things being equal.

Once again, characterization of these results as large or small is very much a subjective matter. Certainly one additional year of schooling does not produce large effects on occupational SEI. But large increases in schooling do produce large increases in SEI. For example, if these effect measures are approximately the same at 9, 10 and 11

[6] The standard deviation of these effects over the nine states is 0.6252 for Hispanics and 0.3216 for white non-Hispanics. Although standard errors for effect estimates are not available, error estimates for other variables serve as a crude guide and suggest that state-to-state variation of effects about these means is well within the range expected on the basis of estimation error. Indeed, the differences between schooling effects for Hispanics and white non-Hispanics do not seem to be substantively or statistically significant.

years of schooling as they are at 12, then these findings would suggest that a high school education tends to produce a 12 to 16 point improvement in SEI, other things being equal. That is about the SEI difference between a porter and a welder.

Length of Labor Force Experience

Table 21 presents the effects of labor force experience on occupational SEI. As before, these effects are evaluated at ten years of experience. Comparing columns 2 and 4 indicates state-specific differences in the experience effects for Hispanic and white non-Hispanic men. Comparing those columns, notice that the effects of schooling are consistently larger for non-Hispanic whites than for Hispanics. More specifically, the mean effect for Hispanics is 0.4817 SEI points per year. The mean effect for white non-Hispanics is 0.7529 points per year, or 1.64 times as large as the effect for Hispanics. In other words, if one measures men's occupational success with the Duncan socioeconomic index, then it appears that occupational careers of Hispanics tend to be flatter than the occupational careers of non-Hispanics.[7]

SUMMARY: HISPANIC-NON-HISPANIC DIFFERENCES IN OCCUPATIONAL SOCIOECONOMIC STATUS

Before summarizing my findings about Hispanic-non-Hispanic differences in occupational SES, it is important to stress once again that these analyses and findings are useful primarily as a supplement to my earlier

[7] A more complete picture of the effect of experience on occupational achievement would look at the the changing impact of experience over the life cycle. To do that properly, one would need life cycle (i.e., career, or individual history) data, which we do not have. Therefore, I merely note the experience effects which are apparent in my analyses, but do not make much of them. Experience enters my models more as a statistical control than as a means of measuring career patterns.

studies of Hispanic-non-Hispanic differences in occupational earnings power and occupational steadiness of employment. Because employment policy tends to concentrate on earnings and unemployment problems, SES does not have the direct bearing on policy issues that earnings power and steadiness of employment have. But nonpecuniary aspects of employment are not entirely irrelevant to employment policy, and the occupational socioeconomic index gives a wide-angle view of the occupational scene, though it loses detail in the process.

The key findings of the SEI analyses are as listed below. Once again, I caution that these summaries of conclusions leave out important qualifications and supplemental information, and I urge readers to consider the more detailed earlier statements of these findings above.

- As before, I find no pattern of differences among Hispanic ethnicity groups in occupational status achievement, once the effects of schooling, length of labor force experience, foreign birth, English language ability and geographic location are held constant.
- Net of other factors, English language ability has only modest effects on occupational status achievement of Hispanic men. In three of the nine states considered, that effect is not statistically significant. However, the effects of English language ability on the occupational SES of Hispanic men is considerably stronger than its effect on the occupational SES of non-Hispanic men.
- Net of other factors, foreign birth does not affect the occupational status of Hispanic or non-Hispanic men. The effects of foreign birth appear to be mediated through other variables, such as English language ability.

- o The effects of schooling on SES are about the same for Hispanics and non-Hispanics, other things equal. The net impact of schooling is moderate for both groups.

This terminates the bulk of my empirical analyses. I now turn to the broader implications of my findings.

VIII. CONCLUSIONS AND IMPLICATIONS FOR EMPLOYMENT POLICY

This report has presented the results of hundreds of regression analyses, significance tests, and other statistical procedures. Volumes could be written drawing out the full detail of these statistics. But the main findings of these analyses are sufficiently consistent, strong and suggestive that a few paragraphs suffice to summarize important results and draw out major implications. Before presenting those findings, I once again remind the reader to consider carefully the limitations inherent in this study. In particular, data are drawn from a 1975 survey which was designed for purposes other than my own. Not all variables that might be included in my analyses are present. Not all places where Hispanics live in the United States are included in my computations. Sample sizes are painfully small in places where interest is particularly strong, such as Florida. And the concentration of different Hispanic ethnicity subgroups in different areas of the country immeasurably complicates my efforts to distinguish the effects of geographic location from any possible effects of ethnicity subgroup membership. Nonetheless, the data I use here are the best available, and the alternative to using these imperfect data is the even worse procedure of consulting unsupported preconceptions and hunches about a very complicated process. Prepared by these caveats, I now turn to the conclusions and implications of my research.

Perhaps the most consistent finding in this study is an absence of occupational differences among Hispanic ethnicity subgroups, once the effects of geographic location, schooling, experience, foreign birth and

English language ability are held constant. This finding seems to imply that one need not resort to complicated theories to explain why some Hispanic ethnic subgroups do better occupationally than others. Controls for a few simple variables, plus recognition that occupational distributions vary geographically, make ethnic occupational differentials vanish. Another implication of this finding would seem to be that policies and programs aimed at Hispanic workers do not have to be tailored to the characteristics of specific Hispanic ethnicity groups. Tailoring to local labor market conditions, to persons with particular levels of schooling, and to persons with given levels of English language ability certainly may be appropriate. But ethnic differences among Hispanics per se do not seem to play an important role in Hispanic occupational achievement in the contemporary United States.

A second, important conclusion to be drawn from this research concerns the effects of schooling on occupational achievement. The effects of a single year of schooling appear to be sufficiently modest that it takes large educational differentials to produce large occupational differentials. For low-income workers who have already entered the labor force or who are nearing the age of labor force entry, the opportunity cost of a year of schooling is very dear. For the poor, who spend a larger proportion of their income on necessities than the nonpoor, the cost of sending a working-age man or boy to school instead of to work may well be measured in meals foregone by his family, winter days without heat in his home, or illnesses of his siblings or children left untreated by a physician (see Wall Street Jounal, 1982). In the eyes of the poor, the occupational returns to schooling may well seem insufficiently strong to suggest increases in years of schooling as a method of boosting occupational quality.

In contrast, the occupational effects of learning to speak English appear to be very strong. Indeed, it seems that reducing hours of work to attend English language classes might well be a very worthwhile investment, even for those who would suffer fairly severe deprivations from temporary reductions in already-low earnings. So if there is to be a policy which fosters occupational improvement by altering the characteristics of Hispanic workers who do not speak English, the results reported here suggest that these programs focus on teaching English rather than on moving Hispanics along traditional educational pathways in Spanish. In particular, these findings suggest that providing traditional school curricula in Spanish for non-English-speaking Hispanics is not an efficient way to raise the occupational earnings potential of Hispanic men. Viewed from the standpoint of occupational earnings potential, it would seem more efficient to teach only English than to teach other subjects in Spanish.

Although the subject of discrimination is not addressed directly in this document, the regression equations described here, and especially the standardizations based on these regressions, are very similar to the regressions and standardizations used in many studies of discrimination. The standardizations involving a "standard immigrant" would, in many situations, be taken as evidence of discrimination against Hispanics -- a hypothetical person was allocated to a worse occupation when treated as a Hispanic than when treated as a white non-Hispanic. However, changing that hypothetical person's country of birth to the United States, and changing his English language ability from poor to very good virtually eliminates differences in occupational quality, and therefore

makes "discrimination" vanish. If these results really do tell us something about occupational discrimination, they seem to be saying that new immigrant American Hispanics suffer strong discrimination, but their English-speaking children do not. This suggests a pattern of occupational discrimination against Hispanics which is very different from the occupational discrimination experienced by U.S. blacks, whose average occupational standing remains below that of comparable whites generation after generation, with no real relif apparent in the near term. This finding is at once a source of optimism about the future of Hispanics in the United States, and a sad commentary on the continuing history of social and economic inequality experienced by American blacks.

Table 1:

CANONICAL CORRELATION ANALYSIS OF THE OVERLAP BETWEEN GEOGRAPHIC LOCATION AND ETHNICITY OF THE HISPANIC POPULATION

Specification (Note a)	Geographic Areas Included in Analysis and Number of Data Cases (Note b)	Variance Explained (Note c)
1	8 SMSA's with at least 145 SIE data cases (note d) n=1701	80%
2	9 SMSA's with at least 100 SIE data cases (note e) n=1804	79%
3	12 SMSA's with at least 75 SIE data cases (note f) n=2061	80%
4	9 States with at least 200 SIE data cases (TX, NM, CA, CO, NY, AZ, NJ, NV, FL) n=4061	80%
5	14 States with at least 100 SIE data cases (TX, NM, CA, CO, NY, AZ, NJ, NV, FL, IL, ID, WY, UT, CT n=4901	77%

Notes:

(a) Computed from Survey of Income and Education. Sample limited to Hispanics in specified geographic areas who were members of the experienced civilian labor force. Results here are from canonical correlation of dummy variables for four Hispanic ethnicity categories with dummy variables representing all but one of the geographic areas identified in table. Hispanic ethnicity categories represented by dummy variables are Mexican, Puerto Rican, Central and South American and Cuban. To avoid multicolinearity, a dummy for the remaining ethnicity category, "Other Spanish," is excluded from the analysis.

(b) To avoid multicolinearity, the last geographic area listed in each specification is not represented by a dummy variable in the canonical correlations analysis. Each other geographic area is represented by a dummy variable. For example, the first analysis includes dummy variables for each of 7 SMSA's.

(c) Proportion of variance explained by the first two canonical variates. Higher order variates contributed negligibly to explained variance.

(d) SMSA's are Los Angeles, New York, Albuquerque, San Antonio, Denver, Chicago, Miami, and Phoenix.

(e) SMSA's are those listed in (d) plus Jersey City.

(f) SMSA's are those listed in (d) and (e) plus Salt Lake City, Washington, D.C., and El Paso.

Table 2: R2 and Sample Size for Regression of Ln Malewage on Ed, Ed2, Ex, Ex2, SPKENG, and FORBOR with and w/out Race Ethnicity and Geographic Variables for Male ECLF.

	HISPANICS		NONHISPANICS		TOTAL SAMPLE	
	Model with Ethnicity Dummies	Model w/o Ethnicity Dummies	WHITE	BLACK	Model with Ethnicity Dummies (b)	Model with simple Hispanic dummy only (a)
New York	0.2647 163	0.2622 163	0.1994 260	0.3507 2300	0.3473 2758	0.3472 2758
New Jersey	0.3234 133	0.2389 133	0.2800 255	0.3906 3096	0.3992 3518	0.3959 3518
Florida	0.3278 98	0.2472 98	0.1843 199	0.3000 1055	0.3576 1354	0.3547 1354
Texas	0.3427 499	0.3329 499	0.2844 258	0.3048 2062	0.3538 2832	0.3523 2832
Colorado	0.2437 198	0.2361 198	0.5559 53	0.3068 1889	0.3205 2155	0.3200 2155
New Mexico	0.3300 468	0.3238 468	0.4412 21	0.3324 856	0.3723 1407	0.3710 1407
Arizona	0.2786 187	0.2778 187	0.3890 25	0.3016 1128	0.3246 1384	0.3246 1384
Nevada	0.3955 130	0.3771 130	0.1847 143	0.2857 2530	0.3161 2856	0.3150 2856
California	0.3775 396	0.3741 396	0.3419 174	0.3431 2171	0.3835 2843	0.3830 2843
9 States WITH State Dummies	0.3297 2272	0.3244 2272	0.2746 1366	0.3340 17,087	0.3793 7136	0.3787 7136
9 States WITHOUT State Dummies	0.3126 2272	0.3000 2272	0.2619 1366	0.3324 17,087	0.3762 7136	0.3753 7136

Notes: a model includes H but no Hispanic ethnicity variables

b model includes H and Hispanic ethnicity variables

TABLE 3: Hispanic Ethnicity Effects in Regression of LnMalewage on Ed, Ed2, Ex, Ex2, SPKENG, FORBOR, and Dummies for Membership in Four Hispanic Ethnicity Groups, by State, with t-Statistics for the Hispanic Male Experienced Civilian Labor Force.

	Mexican (1)	Puerto Rican (2)	Cuban (3)	Central & South American (4)
New York	a	.0412 (0.55)	.0482 (0.43)	.0631 (0.72)
New Jersey	-.2609 (-0.73)	-.0404 (-0.42)	-.0403 (-0.40)	-.3371 (-3.04)
Florida	-.0492 (-0.27)	.0038 (0.02)	.1395 (1.22)	-.2373 (-1.45)
Texas	-.0980 (-1.26)	.2634 (1.23)	.0742 (0.42)	-.3898 (-1.47)
Colorado	.0497 (0.87)	.1695 (0.75)	-.0688 (-0.35)	.1640 (0.85)
New Mexico	.0478 (1.79)	a	a	-.2553 (-0.91)
Arizona	.0377 (0.38)	-.0031 (-0.01)	a	.0378 (0.13)
Nevada	.0130 (0.16)	.4464 (1.78)	-.0212 (-0.17)	.0468 (0.29)
California	.0005 (0.01)	-.0569 (-0.52)	.1709 (1.08)	.0433 (0.53)
9 States WITH State Dummies	-.0170 (-0.69)	.0229 (0.70)	.1270 (3.47)	-.0114 (-0.35)
9 States WITHOUT State Dummies	-.0025 (-0.12)	.0064 (0.22)	.1485 (4.76)	-.0248 (-0.76)

Notes: a insufficient cases to estimate equation in this cell, or to use this variable in model

Table 4: Hispanic Ethnicity Effects in Regression of LnMWage on Ed, Ed2, Ex, Ex2, SPKENG, FORBOR, and Various Hispanic Indicator Variables by State with t-statistics, for the Total Male Experienced Civilian Labor Force.

	(b) H	(c) ME	(c) PR	(c) CU	(c) CE	(c) S
New York	-.0669 (-2.35)	a	-.0343 (-0.50)	-.0692 (-0.71)	-.0373 (-0.48)	-0.344 (-0.56)
New Jersey	-.0769 (-2.43)	-.2344 (-0.77)	-.0443 (-0.56)	-.0782 (-0.95)	-.3126 (-3.51)	.0152 (0.21)
Florida	-.0247 (-0.45)	-.0369 (-0.21)	.0156 (0.09)	.0911 (1.08)	-.2145 (-1.47)	-.0458 (-0.58)
Texas	-.0225 (-1.02)	-.1095 (-1.30)	.2543 (1.09)	.0736 (0.38)	-.3619 (-1.26)	.0801 (0.96)
Colorado	-.0124 (-0.45)	.0252 (0.43)	.1660 (0.71)	-.0752 (-0.37)	.1673 (0.96)	-.0363 (-0.66)
New Mexico	-.0253 (-1.07)	.0434 (1.52)	a	a	-.2368 (-0.78)	-.0454 (-1.66)
Arizona	-.0312 (-0.95)	.0147 (0.13)	-.0322 (-0.13)	a	.0460 (0.13)	-0.448 (-0.39)
Nevada	-.0530 (-1.51)	-.0063 (-0.08)	.3315 (1.34)	-.1561 (-1.31)	-.0760 (-0.49)	-.0387 (-0.56)
California	-.0564 (-2.54)	-.0011 (-0.02)	-.0489 (-0.41)	.2085 (1.24)	.0266 (0.31)	-.0573 (-0.97)
9 States WITH State Dummies	-.0451 (-3.00)	-.0228 (-0.61)	-.0023 (-0.07)	.0776 (1.49)	-.0565 (-1.06)	-.0317 (-0.91)
9 States WITHOUT State Dummies	-.0454 (-3.06)	-.0233 (-0.64)	-.0068 (-0.14)	.1014 (1.97)	-.0582 (-1.10)	-.0323 (-0.93)

Notes: a insufficient cases to estimate equation in this cell, or to use this variable in model

b model includes H but no Hispanic ethnicity variables

c model includes H and Hispanic ethnicity variables

Table 5: Coefficient and t-statistic of SPKENG in Regression of LN Malewage on Ed, Ed2, Ex, Ex2, SPKENG, FORBOR, and Various Hispanic Indicators for the Total Male ECLF.

	HISPANICS		NONHISPANICS		TOTAL SAMPLE	
	Model with Ethnicity Dummies	Model w/o Ethnicity Dummies	WHITE	BLACK	Model with Ethnicity Dummies (c)	Model with simple Hispanic dummy only (b)
New York	.0664 (2.39)	.0642 (2.37)	.0581 (1.54)	.0038 (0.23)	.0394 (3.05)	.0395 (3.07)
New Jersey	.0397 (1.47)	.0727 (2.78)	-.0624 (-0.94)	.0341 (2.20)	.0337 (2.80)	.0433 (3.66)
Florida	.0353 (0.97)	.0234 (0.64)	-.0139 (-0.16)	.0067 (0.11)	.0283 (1.09)	.0163 (0.66)
Texas	.0495 (3.43)	.0500 (3.47)	.0069 (0.06)	.0688 (2.19)	.0519 (3.92)	.0531 (4.03)
Colorado	.0459 (1.22)	.0515 (1.39)	a	.0737 (2.13)	.0660 (2.72)	.0678 (2.81)
New Mexico	.0509 (2.64)	.0521 (2.69)	a	-.0503 (-0.91)	.0537 (3.15)	.0540 (3.16)
Arizona	.0686 (2.21)	.0682 (2.25)	-.6362 (-1.65)	.0024 (0.05)	.0304 (1.30)	.0304 (1.30)
Nevada	.0909 (2.77)	.0925 (2.87)	-.3388 (-1.03)	-.0290 (0.72)	.0902 (4.23)	.0934 (4.43)
California	.1014 (6.06)	.1022 (6.22)	-.2404 (-1.26)	.0379 (1.54)	.0736 (5.64)	.0737 (5.73)
9 States WITH State Dummies	.0714 (10.22)	.0716 (10.29)	.0688 (2.09)	.0252 (3.15)	.0581 (6.95)	.0578 (6.96)
9 States WITHOUT State Dummies	.0655 (9.38)	.0635 (9.14)	.0616 (1.86)	.0262 (3.29)	.0580 (6.93)	.0574 (6.91)

Notes: a insufficient cases to estimate equation in this cell, or to use this variable in model

b model includes H but no Hispanic ethnicity variables

c model includes H and Hispanic ethnicity variables

Table 6: Coefficent and t-statistics of FORBOR in Regression of LN Malewage on Ed, Ed2, Ex, Ex2, SPKENG, FORBOR, and Various Hispanic Indicators for the Total Male ECLF.

	HISPANICS		NONHISPANICS		TOTAL SAMPLE	
	Model with Ethnicity Dummies	Model w/o Ethnicity Dummies	WHITE	BLACK	Model with Ethnicity Dummies (c)	Model with simple Hispanic dummy only (b)
New York	-.0501 (-0.69)	-.0394 (-0.56)	.0901 (1.70)	.0308 (1.42)	.0502 (2.18)	.0491 (2.14)
New Jersey	-.0320 (-0.87)	-.0701 (-0.68)	-.1278 (-1.14)	.0291 (1.09)	.0226 (0.96)	.0297 (1.27)
Florida	-.0256 (-0.22)	.0445 (0.48)	-.0836 (-0.58)	.0123 (0.17)	.0083 (0.16)	.0152 (0.31)
Texas	.0632 (1.86)	.0654 (1.96)	a	.0331 (0.58)	.0519 (1.72)	.0541 (1.81)
Colorado	.0600 (0.56)	.1014 (1.14)	a	-.0556 (-1.00)	-.0194 (-0.41)	-.0078 (-0.17)
New Mexico	.0323 (0.54)	.0516 (0.87)	a	-.1521 (-1.33)	.0121 (0.23)	.0270 (0.52)
Arizona	-.0553 (-0.93)	-.0570 (-1.00)	-.2816 (-0.71)	.0536 (0.86)	-.0137 (-0.31)	-.0137 (-0.31)
Nevada	-.2484 (-2.89)	-.2292 (-2.96)	a	-.0287 (-0.66)	-.0645 (-1.83)	-.0691 (-1.99)
California	.0236 (0.59)	.0367 (0.98)	a	-.0505 (-1.58)	-.0158 (-0.66)	-.0120 (-0.51)
9 States WITH State Dummies	.0155 (0.66)	.0222 (1.33)	.0064 (0.16)	.0033 (0.27)	.0143 (0.90)	.0185 (1.21)
9 States WITHOUT State Dummies	-.0149 (-0.87)	.0088 (0.59)	.0074 (0.19)	-.0010 (-0.08)	.0095 (0.60)	.0150 (0.99)

Notes: a insufficient cases to estimate equation in this cell, or to use this variable in model

b model includes H but no Hispanic ethnicity variables

c model includes H and Hispanic ethnicity variables

Table 7: Effects of Schooling on Occupational Earnings Power of Males, by Race, Hispanic Background and Location

	HISPANICS		NONHISPANICS		TOTAL SAMPLE	
	Model with Ethnicity Dummies	Model w/o Ethnicity Dummies	WHITE	BLACK	Model with Ethnicity Dummies (b)	Model with simple Hispanic dummy only (a)
New York	0.04740	0.04780	0.04050	0.04900	0.04470	0.04500
New Jersey	0.04080	0.04480	0.05210	0.04460	0.04730	0.04500
Florida	0.04080	0.03710	0.04010	0.04270	0.04280	0.04050
Texas	0.03510	0.03650	0.04620	0.03600	0.03890	0.03780
Colorado	0.04820	0.04630	0.02150	0.03870	0.03990	0.04030
New Mexico	0.04550	0.04210	0.05350	0.03530	0.03880	0.03980
Arizona	0.04090	0.04020	0.03890	0.03420	0.04080	0.04310
Nevada	0.03440	0.03250	0.04100	0.03290	0.03300	0.03230
California	0.02650	0.02470	0.06040	0.03980	0.03990	0.04010
9 States WITH State Dummies	0.03330	0.03330	0.04770	0.04140	0.04210	0.07890
9 States WITHOUT State Dummies	0.03450	0.03510	0.05230	0.04220	0.04120	0.04270

Notes: a model includes H but no Hispanic ethnicity variables

b model includes H and Hispanic ethnicity variables

Table 8: Effects of Experience on Occupational Earnings Power of Male, by Race, Hispanic Background and Location

	HISPANICS		NONHISPANICS		TOTAL SAMPLE	
	Model with Ethnicity Dummies	Model w/o Ethnicity Dummies	WHITE	BLACK	Model with Ethnicity Dummies (b)	Model with simple Hispanic dummy only (a)
New York	0.01180	0.01160	0.00710	0.01690	0.01460	0.01650
New Jersey	0.01270	0.00960	0.01200	0.01740	0.01610	0.01610
Florida	0.00770	0.00700	0.01320	0.01470	0.01470	0.01460
Texas	0.02070	0.02050	0.01410	0.01530	0.01420	0.01610
Colorado	0.01190	0.01290	0.01380	0.01850	0.01740	0.01760
New Mexico	0.01400	0.01400	0.00470	0.01670	0.01470	0.01470
Arizona	0.00890	0.00910	0.01690	0.01670	0.01390	0.01390
Nevada	0.01900	0.01890	0.01570	0.01920	0.01890	0.01890
California	0.01650	0.01670	0.00370	0.01660	0.01570	0.01570
9 States WITH State Dummies	0.01460	0.01630	0.01040	0.01580	0.01560	0.01550
9 States WITHOUT State Dummies	0.01550	0.01510	0.01030	0.01590	0.01560	0.01550

Notes: a model includes H but no Hispanic ethnicity variables

b model includes H and Hispanic ethnicity variables

Table 9: R2 and Sample Size for Regression of WKS WORKED on Ed, Ed2, Ex, Ex2, SPKENG, and FORBOR with and w/out Race Ethnicity and Geographic Variables for Male ECLF.

	HISPANICS		NONHISPANICS		TOTAL SAMPLE	
	Model with Ethnicity Dummies	Model w/o Ethnicity Dummies	WHITE	BLACK	Model with Ethnicity Dummies (b)	Model with simple Hispanic dummy only (a)
New York	0.1358 163	0.1289 163	0.0331 260	0.0752 2300	0.0756 2758	0.0747 2758
New Jersey	0.1850 133	0.1373 133	0.0568 255	0.0936 3096	0.1026 3518	0.0991 3518
Florida	0.1336 98	0.0927 98	0.0659 199	0.0850 1055	0.1097 1354	0.1084 1354
Texas	0.0873 499	0.0761 499	0.0360 258	0.0796 2062	0.0980 2832	0.0963 2832
Colorado	0.1073 198	0.0774 198	0.2770 53	0.1131 1889	0.1145 2155	0.1115 2155
New Mexico	0.1179 468	0.1046 468	0.2456 21	0.1478 856	0.1501 1407	0.1455 1407
Arizona	0.1141 187	0.1043 187	0.2214 25	0.0667 1128	0.0892 1384	0.0869 1384
Nevada	0.1717 130	0.1391 130	0.1007 143	0.0923 2530	0.1134 2856	0.1110 2856
California	0.0788 396	0.0776 396	0.0884 174	0.0668 2171	0.0936 2843	0.0934 2843
9 States WITH State Dummies	0.0848 2272	0.0842 2272	0.0458 1366	0.0748 17,087	0.0837 7136	0.0835 7136
9 States WITHOUT State Dummies	0.0766 2272	0.0721 2272	0.0429 1366	0.0738 17,087	0.0822 7136	0.0819 7136

Notes: a model includes H but no Hispanic ethnicity variables

b model includes H and Hispanic ethnicity variables

Table 10: Hispanic Ethnicity Effects in Regression of WKS WORKED on Ed, Ed2, Ex, Ex2, SPKENG, FORBR and Dummies for Membership in Four Hispanic Ethnicity Groups by State, with t-statistics for the Hispanic Male Experienced Civilian Labor Force.

	ME	PR	CU	CE
New York	a	-3.4459 (-0.62)	-4.5068 (-0.54)	0.9710 (0.15)
New Jersey	-10.285 (-0.40)	-3.1013 (-0.45)	3.6321 (0.51)	-12.623 (-1.62)
Florida	-15.294 (-1.35)	-4.8783 (-0.40)	-2.3706 (-0.33)	-14.065 (-1.38)
Texas	-3.4178 (-0.55)	17.329 (1.01)	6.8282 (0.48)	-40.754 (-1.91)
Colorado	3.8561 (0.97)	-31.168 (-1.97)	4.6188 (0.33)	-6.7370 (-0.50)
New Mexico	4.9669 (2.63)	a	a	5.0796 (0.26)
Arizona	-10.519 (-1.27)	-2.3729 (-0.13)	a	.3090 (0.01)
Nevada	-2.7087 (-0.52)	-35.174 (-2.12)	-6.7036 (-0.81)	-3.0925 (-0.29)
California	1.3314 (0.29)	3.8317 (0.45)	-4.9158 (-0.40)	1.3947 (0.22)
9 States WITH State Dummies	-.8448 (-0.45)	-2.2106 (-0.90)	-.9435 (-0.34)	-2.5603 (-1.02)
9 States WITHOUT State Dummies	-1.8045 (-1.11)	-2.7778 (-1.29)	3.2839 (1.40)	-3.1357 (-1.29)

Notes: a insufficient cases to estimate equation in this cell, or to use this variable in model

Table 11: Hispanic Ethnicity Effects in Regression of WKS WORKED on Ed, Ed2, Ex, Ex2, SPKENG, FORBOR, and various Hispanic Indicator Variables, by State, with t-statistics, for the TOTAL MALE Experienced Civilian Labor Force

	H [b]	ME [c]	PR [c]	CU [c]	CE [c]	H [c]
New York	-2.5637 (-1.26)	a	-4.9071 (-1.00)	-8.5052 (-1.21)	-.5811 (-0.10)	.9316 (0.21)
New Jersey	-5.4860 (-2.19)	-2.0741 (-0.09)	-4.5904 (-0.73)	-1.0758 (-0.16)	-20.162 (-2.86)	-.0998 (-0.02)
Florida	5.2357 (1.51)	-6.7038 (-0.61)	-3.8472 (-0.36)	-.3406 (-0.06)	-10.386 (-1.13)	7.1140 (1.43)
Texas	-5.009 (-0.29)	-2.9816 (-0.45)	17.096 (0.94)	6.7156 (0.45)	-39.86? (-1.78)	?.3447 (0.36)
Colorado	.5863 (0.33)	2.8099 (0.74)	-33.849 (-2.23)	1.2358 (0.09)	-8.8288 (-0.77)	-1.1081 (-0.31)
New Mexico	-2.6981 (-1.71)	5.1756 (2.73)	a	a	8.6307 (0.43)	-5.1594 (-2.85)
Arizona	-1.4899 (-0.68)	-12.816 (-1.66)	-3.7931 (-0.22)	a	3.0200 (0.13)	10.371 (1.36)
Nevada	-3.8502 (-1.70)	-.4924 (-0.10)	-33.483 (-2.09)	-12.141 (1.58)	-7.3993 (-0.74)	-2.0301 (-0.45)
California	-4.8977 (3.14)	1.3447 (0.31)	4.1515 (0.50)	-3.2805 (0.28)	2.2446 (0.38)	-6.2049 (-1.50)
9 States WITH State Dummies	-2.1136 (-1.93)	-.5881 (-0.22)	-2.1713 (-0.61)	1.9845 (0.52)	-2.0141 (0.52)	-1.4825 (-0.58)
9 States WITHOUT State Dummies	-2.0894 (-1.94)	-1.0785 (-0.41)	-2.3348 (-0.67)	2.5000 (0.67)	-2.4032 (-0.63)	-1.1449 (-0.46)

Notes: a insufficient cases to estimate equation in this cell, or to use this variable in model

b model includes H but no Hispanic ethnicity variables

c model includes H and Hispanic ethnicity variables

Table 12: Coefficient and t-statistics of SPKENG in Regression of WKS WORKED on Ed, Ed2, Ex, Ex2, SPKENG, FORBOR, and Various Hispanic Indicators for the Total Male ECLF.

	HISPANICS		NONHISPANICS		TOTAL SAMPLE	
	Model with Ethnicity Dummies	Model w/o Ethnicity Dummies	WHIT	BLACK	Model with Ethnicity Dummies	Model with simple Hispanic dummy only
New York	2.3869 (1.16)	2.0978 (1.05)	1.0424 (0.32)	-1.4261 (-1.18)	.5240 (0.57)	.4791 (0.52)
New Jersey	3.2[illegible]7 (1.[illegible])	4.2409 (2.34)	4.1137 (0.68)	.8783 (0.71)	.8566 (0.90)	1.4304 (1.53)
Florida	2.3960 (1.05)	2.2620 (1.02)	.7414 (0.15)	6.6727 (1.71)	3.5119 (2.15)	3.1742 (2.04)
Texas	2.6109 (2.25)	2.5524 (2.21)	7.5912 (0.69)	2.0347 (0.84)	2.1995 (2.13)	2.1601 (2.10)
Colorado	5.1722 (1.96)	5.4319 (2.07)	a	-.6733 (-0.30)	2.0604 (1.30)	2.1243 (1.35)
New Mexico	1.5247 (1.11)	1.5813 (1.15)	a	-3.1180 (-0.97)	2.3371 (2.06)	2.3379 (2.06)
Arizona	5.2772 (2.02)	5.5343 (2.15)	-23.090 (-1.60)	-.0059 (-0.00)	3.3406 (2.12)	3.5473 (2.26)
Nevada	3.4424 (1.58)	3.6009 (1.67)	-20.925 (-1.03)	1.8483 (0.72)	2.5483 (1.84)	2.8790 (2.11)
California	1.7879 (1.39)	1.7476 (1.39)	-3.1011 (-0.20)	-.8426 (-0.49)	.4674 (0.51)	.4567 (0.51)
9 States WITH State Dummies	2.1394 (4.05)	2.1400 (4.09)	-2.0607 (-0.79)	.0237 (0.04)	1.3454 (2.21)	1.2933 (2.14)
9 States WITHOUT State Dummies	1.9315 (3.69)	1.8517 (3.58)	-1.9989 (-0.77)	.0953 (0.17)	1.3148 (2.16)	1.2704 (2.11)

Notes: a insufficient cases to estimate equation in this cell, or to use this variable in model

b model includes H but no Hispanic ethnicity variables

c model includes H and Hispanic ethnicity variables

Table 13: Coefficient and t-statistics of FORBOR in Regression of WKS WORKDED on Ed, Ed2, Ex, Ex2, SPKENG, FORBOR, and Various Indicators for the Total Male ECLF.

	HISPANICS		NONHISPANICS		TOTAL SAMPLE	
	Model with Ethnicity Dummies	Model w/o Ethnicity Dummies	WHITE	BLACK	Model with Ethnicity Dummies	Model with simple Hispanic dummy only
New York	-7.0993 (-1.32)	-7.2806 (-1.40)	1.5971 (0.35)	-1.4109 (-0.71)	-.6410 (-0.39)	-.7624 (-0.46)
New Jersey	-8.6448 (-1.14)	-6.3109 (-0.88)	-2.3713 (-0.23)	2.5001 (1.18)	1.8410 (0.99)	2.2646 (1.22)
Florida	-3.3175 (-0.46)	-3.0246 (-0.54)	.4551 (0.05)	2.2366 (0.49)	.8424 (0.26)	.8640 (0.28)
Texas	4.2846 (1.57)	4.0720 (1.52)	a	-.2417 (-0.05)	2.8850 (1.22)	2.7154 (1.16)
Colorado	1.8824 (0.25)	-2.5851 (-0.41)	a	-4.1117 (-1.15)	-2.4617 (-0.80)	-3.5965 (-1.20)
New Mexico	-.7583 (-0.18)	1.2142 (0.29)	a	-16.944 (-2.54)	-2.5761 (-0.74)	-.8484 (-0.25)
Arizona	2.8694 (0.57)	3.7179 (0.77)	-19.415 (-1.31)	-1.1067 (0.27)	.2630 (0.09)	.7044 (0.24)
Nevada	-7.9583 (-1.40)	-10.593 (-2.05)	a	-.0899 (-0.03)	-1.8651 (-0.82)	-2.6290 (-1.17)
California	2.5599 (0.83)	2.4343 (0.85)	a	-1.5484 (-0.70)	-.2130 (-0.13)	-.1697 (-0.10)
9 States WITH State Dummies	1.0511 (0.80)	.8001 (0.63)	-1.2867 (-0.39)	-.8880 (-1.01)	.6106 (0.53)	.5929 (0.53)
9 States WITHOUT State Dummies	.1671 (0.13)	.5914 (0.53)	-.6414 (-0.20)	-1.0792 (-1.23)	.3821 (0.34)	.4210 (0.39)

Notes: a insufficient cases to estimate equation in this cell, or to use this variable in model

b model includes H but no Hispanic ethnicity variables

c model includes H and Hispanic ethnicity variables

Table 14: Effects of Schooling on Steadiness of Employment of Males, by Race, Hispanic Background and location

	HISPANICS		NONHISPANICS		TOTAL SAMPLE	
	Model with Ethnicity Dummies	Model w/o Ethnicity Dummies	WHITE	BLACK	Model with Ethnicity Dummies (b)	Model with simple Hispanic dummy only (a)
New York	0.76500	0.78460	0.67430	1.46990	1.12900	1.11950
New Jersey	1.18010	1.60200	0.73380	1.58990	1.44340	1.43200
Florida	0.56390	0.45840	1.80300	0.74760	0.77150	0.76240
Texas	0.90860	0.91260	1.3549C	1.4394C	1.28540	1.29250
Colorado	1.39720	1.21000	-1.36290	1.4505)	1.29420	1.28360
New Mexico	1.61130	1.54240	4.29830	0.22660	0.67870	0.64370
Arizona	1.55040	1.68830	-0.14100	0.72910	0.84830	0.87850
Nevada	0.68070	0.68060	0.60000	0.96880	0.82620	0.83220
California	0.70690	0.72260	3.02700	1.06320	0.93700	0.93760
9 States WITH State Dummies	0.89530	0.88790	1.28010	1.21180	1.11140	1.11630
9 States WITHOUT State Dummies	0.92790	0.99070	1.28200	1.20060	1.09160	1.09920

Notes: a model includes H but no Hispanic ethnicity variables

b model includes H and Hispanic ethnicity variables

Table 15: Effects of Experience on Steadiness of Employment of Males, by Race, Hispanic Background, and Location

	HISPANICS		NONHISPANICS		TOTAL SAMPLE	
	Model with Ethnicity Dummies	Model w/o Ethnicity Dummies	WHITE	BLACK	Model with Ethnicity Dummies (b)	Model with simple Hispanic dummy only (a)
New York	0.51140	0.52630	0.43430	0.49900	0.49280	0.49440
New Jersey	0.72130	0.64860	0.71940	0.57570	0.58700	0.58630
Florida	0.25220	0.30190	0.22510	0.64920	0.56580	0.56520
Texas	0.63450	0.61380	0.36020	0.48350	0.50350	0.49950
Colorado	0.43040	0.40940	1.07300	0.71060	0.69740	0.69270
New Mexico	0.51840	0.49480	-0.16220	0.86700	0.64510	0.63950
Arizona	0.00180	-.01710	-.019710	0.60170	0.50990	0.50470
Nevada	0.28020	0.28380	0.92410	0.73630	0.72680	0.72540
California	0.56250	0.55530	0.23290	0.54540	0.54120	0.54130
9 States WITH State Dummies	0.48530	0.48510	0.36070	0.54850	0.47540	0.47490
9 States WITHOUT State Dummies	0.47620	0.48010	0.37150	0.54880	0.47140	0.47100

Notes: a model includes H but no Hispanic ethnicity variables

b model includes H and Hispanic ethnicity variables

Table 16: R2 and Sample Size for Regression of Duncan SEI on Ed, Ed2, Ex, Ex2, SPKENG, and FORBOR with and w/out Race Ethnicity and Geographic Variables for Male ECLF.

	HISPANICS		NONHISPANICS		TOTAL SAMPLE	
	Model with Ethnicity Dummies	Model w/o Ethnicity Dummies	WHITE	BLACK	Model with Ethnicity Dummies (b)	Model with simple Hispanic dummy only (a)
New York	0.3196 163	0.3183 163	0.3113 260	0.4202 2300	0.4181 2758	0.4177 2758
New Jersey	0.3895 133	0.3708 133	0.3358 255	0.4461 3096	0.4607 3518	0.4605 3518
Florida	0.3824 98	0.3313 98	0.3182 199	0.3835 1055	0.4364 1354	0.4338 1354
Texas	0.4893 499	0.4872 499	0.3731 258	0.3886 2062	0.4382 2832	0.4376 2832
Colorado	0.2924 198	0.2799 198	0.5868 53	0.3349 1889	0.3501 2155	0.3489 2155
New Mexico	0.4620 468	0.4557 468	0.4688 21	0.4232 856	0.4661 1407	0.4645 1407
Arizona	0.3346 187	0.3320 187	0.5267 25	0.3745 1128	0.4017 1384	0.4016 1384
Nevada	0.3280 130	0.3133 130	0.1728 143	0.3087 2530	0.3283 2856	0.3278 2856
California	0.3913 396	0.3851 396	0.3565 174	0.4148 2171	0.4414 2843	0.4409 2843
9 States WITH State Dummies	0.3949 2272	0.3899 2272	0.3669 1366	0.4057 17,087	0.4550 7136	0.4546 7136
9 States WITHOUT State Dummies	0.3824 2272	0.3734 2272	0.3495 1366	0.4046 17,087	0.4531 7136	0.4526 7136

Notes: a model includes H but no Hispanic ethnicity variables

b model includes H and Hispanic ethnicity variables

Table 17: Hispanic Ethnicity Effects in Regression of DUNCAN SEI on Ed, Ed2, Ex, Ex2, SPKENG, FORBOR, and Dummies for Membership in Four Hispanic Ethnicity Groups, by State, with t-statistics for the Hispanic Male Experienced Civilian Labor Force.

	ME	PR	CU	CE
New York	a	1.8394 (0.43)	2.9286 (0.46)	1.0440 (0.21)
New Jersey	5.9342 (0.31)	1.7176 (0.34)	7.5281 (1.42)	1.2168 (0.21)
Florida	-12.752 (-1.08)	-.4586 (-0.04)	5.7178 (0.76)	-12.474 (-1.17)
Texas	-3.5908 (-0.82)	1.8156 (0.15)	5.5683 (0.57)	3.0021 (0.20)
Colorado	1.5354 (0.43)	11.043 (0.77)	6.5064 (0.52)	21.107 (1.74)
New Mexico	2.8977 (1.83)	a	a	-22.143 (-1.34)
Arizona	4.2407 (0.65)	-1.9768 (-0.14)	a	-.2014 (-0.01)
Nevada	-1.9714 (-0.51)	13.196 (1.08)	-4.6407 (-0.76)	-4.6111 (-0.59)
California	-5.5442 (-1.71)	-1.3425 (-0.22)	.3228 (0.04)	-5.9190 (-1.31)
9 States WITH State Dummies	-2.7363 (-1.95)	1.3495 (0.73)	4.8312 (2.32)	-2.9887 (-1.59)
9 States WITHOUT State Dummies	-1.8161 (-1.47)	1.3913 (1.16)	5.2316 (2.96)	-2.9480 (-1.60)

Notes: a insufficient cases to estimate equation in this cell, or to use this variable in model

Table 18: Hispanic Ethnicity Effects in Regression of DUNCAN SEI on Ed, Ed2, Ex, Ex2, SPKENG, FORBOR, and various Hispanic Indicator Variables by STATE, with t-statistics, for the Total Male Experienced Civilian Labor Force.

	(b) H	(c) ME	(c) PR	(c) CU	(c) CE	(c) H
New York	-2.3871 (-1.40)	a	-1.3723 (-0.33)	-7.2224 (-1.23)	-3.7675 (-0.81)	-.2151 (-0.06)
New Jersey	-1.1998 (-0.61)	9.7350 (0.51)	1.7494 (0.35)	4.2848 (0.83)	1.3311 (0.24)	-3.4167 (-0.77)
Florida	-2.5282 (-0.78)	-12.611 (-1.23)	-1.3224 (-0.13)	.4471 (0.09)	-16.149 (-1.89)	-.4410 (-0.09)
Texas	1.2145 (0.90)	-5.4166 (-1.05)	.7854 (0.05)	6.3923 (0.55)	5.3752 (0.30)	6.2376 (1.22)
Colorado	-.5251 (-0.30)	1.0391 (0.28)	11.879 (0.81)	7.3898 (0.58)	18.666 (1.70)	-1.9085 (-0.55)
New Mexico	-27.484 (-1.86)	3.0939 (1.74)	a	a	-18.807 (-1.00)	-4.1772 (-2.46)
Arizona	-2.3262 (-1.18)	2.4521 (0.35)	-2.4620 (-0.16)	a	3.2201 (0.15)	-4.5823 (-0.67)
Nevada	-1.0833 (-0.53)	-.9373 (-0.21)	15.020 (1.04)	-4.5872 (-0.66)	-5.2119 (-0.58)	-.0830 (-0.02)
California	-4.8470 (-3.61)	-4.4092 (-1.17)	-.4224 (-0.06)	1.6596 (0.16)	-5.9167 (-1.16)	-1.0495 (-0.29)
9 States WITH State Dummies	-1.5650 (-1.71)	-1.5984 (-0.71)	.4380 (0.15)	1.9663 (0.62)	-4.3502 (-1.35)	-.4617 (-0.22)
9 States WITHOUT State Dummies	-1.9001 (-2.11)	-2.0486 (-0.92)	.7986 (0.27)	2.4170 (0.77)	-4.2990 (-1.34)	-.5535 (-0.26)

Notes: a insufficient cases to estimate equation in this cell, or to use this variable in model

b model includes H but no Hispanic ethnicity variables

c model includes H and Hispanic ethnicity variables

Table 19: Coefficient and t-statistics of SPKENG in Regression of DUNCAN SEI on Ed, Ed2, Ex, Ex2, SPKENG, FORBOR, and Various Hispanic Indicators for the Total Male ECLF.

	HISPANICS		NONHISPANICS		TOTAL SAMPLE	
	Model with Ethnicity Dummies	Model w/o Ethnicity Dummies	WHITE	BLACK	Model with Ethnicity Dummies (c)	Model with simple Hispanic dummy only (b)
New York	3.9631 (2.51)	3.9913 (2.59)	5.4098 (2.30)	-.5259 (-0.51)	1.7921 (2.32)	1.8274 (2.37)
New Jersey	2.1673 (1.51)	1.9660 (1.48)	-4.0287 (-0.98)	2.4928 (2.54)	2.0345 (2.71)	2.0215 (2.74)
Florida	2.0232 (0.85)	1.3848 (0.59)	-2.6060 (-0.58)	2.0476 (0.57)	1.8745 (1.24)	1.3763 (0.95)
Texas	2.2859 (2.84)	2.3591 (2.95)	.6108 (0.08)	.8355 (0.42)	2.2786 (2.80)	2.3924 (2.96)
Colorado	1.2734 (0.54)	1.5369 (0.66)	a	4.5444 (2.10)	3.7528 (2.46)	3.8249 (2.52)
New Mexico	1.3791 (1.20)	1.4621 (1.27)	a	-5.5123 (-1.63)	2.1622 (2.04)	2.1846 (2.06)
Arizona	3.7650 (1.84)	3.6357 (1.82)	-42.201 (-2.11)	2.0377 (0.69)	1.8397 (1.30)	1.8125 (1.29)
Nevada	3.2369 (2.02)	3.2428 (2.06)	-1.9552 (-0.11)	2.3380 (1.00)	4.6217 (3.73)	4.6729 (3.81)
California	2.3356 (2.53)	2.6072 (2.88)	-11.570 (-0.96)	2.3178 (1.54)	1.8156 (2.31)	1.9664 (2.53)
9 States WITH State Dummies	2.2112 (5.56)	2.3121 (5.85)	5.2120 (2.63)	.9532 (1.95)	2.1464 (4.22)	2.1701 (4.30)
9 States WITHOUT State Dummies	1.9072 (4.81)	2.0005 (5.08)	4.6704 (2.34)	.8805 (1.81)	2.0999 (4.13)	2.1422 (4.25)

Notes: a insufficient cases to estimate equation in this cell, or to use this variable in model

b model includes H but no Hispanic ethnicity variables

c model includes H and Hispanic ethnicity variables

Table 20: Coefficient and t-statistics of FORBOR in Regression of DUNCAN SEI on Ed, Ed2, Ex, Ex2, SPKENG, FORBOR, and Various Hispanic Indicators for the Total Male ECLF.

	HISPANICS		NONHISPANICS		TOTAL SAMPLE	
	Model with Ethnicity Dummies	Model w/o Ethnicity Dummies	WHITE	BLACK	Model with Ethnicity Dummies (c)	Model with simple Hispanic dummy only (b)
New York	-6.5669 (-1.58)	-6.2093 (-1.56)	6.3455 (1.91)	1.8126 (1.08)	2.2543 (1.63)	2.1310 (1.55)
New Jersey	-8.9363 (-1.58)	-6.9690 (-1.33)	-.8802 (0.13)	1.6207 (0.96)	.9372 (0.64)	.9469 (0.65)
Florida	-1.3664 (-C.18)	2.7628 (0.47)	-.2825 (-0.04)	1.8162 (0.43)	2.0950 (0.70)	2.1293 (0.74)
Texas	1.8316 (0.97)	2.2765 (1.23)	a	.0410 (0.01)	.9382 (0.50)	1.3591 (0.74)
Colorado	-2.5951 (-0.38)	4.1618 (0.74)	a	-4.2547 (-1.22)	-3.0510 (-1.02)	-1.6049 (-0.56)
New Mexico	.5263 (0.15)	1.7011 (0.48)	a	-15.090 (2.15)	-1.8668 (-0.57)	-.8022 (-0.25)
Arizona	-.4646 (-0.12)	-.9036 (-0.24)	-38.868 (-1.90)	-.9971 (-0.26)	-2.4602 (-0.92)	-2.5162 (-0.95)
Nevada	-4.1572 (-0.99)	-4.7963 (-1.27)	a	-2.2643 (-0.89)	-2.5568 (-1.25)	-2.7204 (-1.35)
California	-.4899 (-0.22)	-.3552 (-0.17)	a	-3.0131 (-1.55)	-1.4250 (-0.99)	-1.4337 (-1.01)
9 States WITH State Dummies	-.9529 (-0.96)	-.5585 (-0.59)	1.6350 (0.66)	-.2952 (-0.39)	.1665 (0.17	.3014 (0.32)
9 States WITHOUT State Dummies	-2.0365 (-2.11)	-.4456 (-0.53)	2.4920 (1.03)	-.3022 (-0.40)	.2922 (0.31)	.5620 (0.61)

Notes: a insufficient cases to estimate equation in this cell, or to use this variable in model

b model includes H but no Hispanic ethnicity variables

c model includes H and Hispanic ethnicity variables

Table 21: Effects of Schooling on SEI of Males, by Race, Hispanic Background, and Location

	HISPANICS		NONHISPANICS		TOTAL SAMPLE	
	Model with Ethnicity Dummies	Model w/o Ethnicity Dummies	WHITE	BLACK	Model with Ethnicity Dummies (b)	Model with simple Hispanic dummy only (a)
New York	2.98770	3.02490	3.86700	4.17660	3.97180	3.95600
New Jersey	3.92470	4.23380	4.25030	4.13870	4.11890	4.12260
Florida	3.44130	3.29250	4.09530	3.76810	3.72040	3.71000
Texas	4.45920	4.52210	4.45720	3.71160	3.91050	3.92490
Colorado	3.37590	4.00060	3.38200	3.37480	3.39020	3.39250
New Mexico	4.75680	4.68660	6.20160	3.67210	5.71940	5.69690
Arizona	3.97260	3.91030	4.36380	3.58400	3.74230	3.73480
Nevada	2.97260	2.94700	2.80110	3.08100	3.08180	3.07730
California	3.16330	3.16510	5.10720	3.75990	3.75260	3.75700
9 States WITH State Dummies	3.62420	3.64470	4.21080	3.84680	3.90700	3.91390
9 States WITHOUT State Dummies	3.68080	3.72550	4.46180	3.82290	3.89020	3.89830

Notes: a model includes H but no Hispanic ethnicity variables

b model includes H and Hispanic ethnicity variables

Table 22: Effects of Experience on SEI of Males, by Race, Hispanic Backgroun and Location

	HISPANICS		NONHISPANICS		TOTAL SAMPLE	
	Model with Ethnicity Dummies	Model w/o Ethnicity Dummies	WHITE	BLACK	Model with Ethnicity Dummies (b)	Model with simple Hispanic dummy only (a)
New York	0.44970	0.44220	0.00250	0.69990	0.61480	0.61590
New Jersey	0.45360	0.40880	0.45340	0.73060	0.73820	0.73890
Florida	0.25360	0.25410	0.36460	0.68510	0.62380	0.62180
Texas	0.74780	0.74970	0.57680	0.70180	0.67340	0.67180
Colorado	-1.80720	0.61140	0.40260	0.87960	0.84350	0.84870
New Mexico	0.52240	0.52160	-0.22060	0.80180	-1.11240	-1.12010
Arizona	0.23930	0.24650	0.28570	0.77660	0.68300	0.68370
Nevada	0.56970	0.56200	0.25510	0.72000	0.69570	0.69530
California	0.52790	0.53940	-0.29600	0.73120	0.62240	0.62230
9 States WITH State Dummies	0.51550	0.51380	0.18160	0.72710	0.69700	0.69640
9 States WITHOUT State Dummies	0.48230	0.49120	0.18300	0.72740	0.69760	0.69710

Notes: a model includes H but no Hispanic ethnicity variables

b model includes H and Hispanic ethnicity variables

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